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TECHNOLOGICAL STUDIES

"Given amendments in methods of working and expansions in the field covered, such as those detailed in the present report, the Institute will prove of almost limitless service to India and to Indians." These concluding words of the Report on the Bangalore Institute of Science appear to state the barest truth to one like myself, who had lately had occasion to note the eagerness that our students evince in pursuing their study of applied sciences in Great Britain, inspite of the many drawbacks they labour under.

Stated broadly, the conclusion I have come to, after taking a careful survey of the entire situation, is that it is a great waste of money and energy for Indian students to come over here for technological studies (and I understand the conditions are similar in America), so that, unless we have our own technological institutions properly equipped, anything like an adequate training of our students will not be possible.

The authors of the report very properly emphasize the importance of adequate facilities for Engineering studies, electrical and mechanical. During my recent visits to various British Universities, I felt how out of place our students in these universities were, and how regrettable it was that the mere laborartory instruction that they were receiving could not be provided in their own country. For, after all, for students of engineering and technology generally, mere laboratory instruction is of only partial value; it is training in works that is of essential importance. Yet, it seems to be almost impossible to secure this for our students under present-day conditions.

Thus, at Bristol, when they have the so-called 'sandwich' system, under which a student takes his training in works for a year, after attending the first year's University course, and for another year, after taking his University degree, I was told not only that it was only when a student's work was entirely satisfactory and could be certified to as such that he was permitted to avail himself of this system, *but* that so far as Indian students were concerned, the Trade Union prejudices stood in the way and the employers were more or less powerless—even if they were willing (*vide infra*) to take such students in view of the opposition of the British workers. The present conflict between workers and employers in the Engineering trade has for one of its objectives the question of the freedom of employers from what they term worker's dictation, but so far as Indian students' chances for work and training are concerned, the difficulties arise from other causes besides the Trade Union difficulties. The following letter from the Principal of Heriot Watt College, Edinburgh, refers to some of these:

"In continuation of our conversation about the training of Indian students as Mechanical and Electrical Engineers, there is no difficulty in their obtaining a thorough scientific education (training) in this country at the various Universities and Technical Colleges, but it is a matter of considerable difficulty to arrange for their receiving a practical workshop training.

We are convinced from long experience that while a preliminary laboratory (workshop) training can be given with advantage within the walls of a Technical College or a University, a sound practical training can only be completed in the actual works carried on for industrial purposes. While we have an agreement with the local Engineering firms by which they diminish the length of the apprenticeship for a Diploma student from a five years' apprenticeship to a three years' one, and we try to arrange as far as possible for an "in-and-out" training for our students, by their attending the College in the Winter and going to the workshops in Summer, it is always a matter of some difficulty and of special personal arrangement to get our students placed in the various Engineering works.

These students are accepted by the firm on the understanding that if they are competent, they will be kept in their employment and consequently it is practically impossible to arrange for the practical training of Indian students who intend, as soon as their training is over, to return to India, unless the student is prepared to pay a premium.

The custom of paying premiums has been dying out for some years, as the heads of Engineering Firms do not approve of premium apprentices, and as a result, it is more and more difficult to find Engineering firms who will take a premium. Moreover, the training of a premium apprentice is seldom satisfactory; he is looked upon as an outsider in the workshop, and does not get a fair amount of attention."

Although I have not the least doubt as to the general correctness of the above statement, it is necessary to state that there have been a few cases where Indian pupils have succeeded in getting into Engineering works—mostly on payment of a rather heavy premium.

A striking example of the general attitude of English firms with regard to Indian apprentices recently came to my notice. When a certain firm which has a large *Indian business* was approached with the request that it might take in a few premium pupils, they replied point blank that they would not take any *Indian*. On this, one of the Directors who had been to India, was appealed to and on his intervention, the firm modified their former declaration by saying that they would if they were suitable, when there was vacancy—in about twelve months.

In this connection, it is worthy of note that the Government of Mysore seems to have lately adopted the plan of including in their tenders to British firms a clause that the acceptance of a tender should carry with it the duty of admitting a certain number of pupils to be sent out by the State. A step like this on the part of the Government of India may go some way towards solving the present difficulty but will by no means meet it in its entirety. There are, of course, difficulties in the way of its adoption but on the whole, they do not seem to be insurmountable, if tactfully handled.

What is true of Engineering (in all its departments) is true of other technical subjects as well. So far as leather industry is concerned, the men engaged in it have such deep prejudice against the admission of apprentices that although Professors in the institutions teaching this subject were always trying their best, they were not at all hopeful of being able to secure admission of any student—however brilliant, Indian or otherwise.

The same is true in the case of dyeing. Prof. Perkin of the University of Leeds told me that it would be extremely difficult for any student of dyeing to get admission into works for training. In most cases, he himself found it difficult to gain admission even for a cursory inspection. He suggested that in view of the prejudice that obtained against the admission of apprentices into English dye works, the proper thing for Indians to do would be to start works of their own with English experts on a contract for a number of years and take a certain number of apprentices who had already been trained at a University. When the period of contract is over and the apprentices will have learned their work, these Works would then do without English experts and employ their own men.

Professor Barker of the Textile Department of the University of Leeds, however, assured me that he was trying to gain admission for his Indian students, with whom he was *very very* satisfied, into suitable Textile factories, and was hopeful of success.

At the same time, it seems to be true, as a general proposition, that the plan suggested by Prof. Perkin seems to be the only feasible one for all the various industries which claim Indian pupils in this country.

The facilities available on the continent for technological studies to our young men are as yet an unexplored field. That they are available in some measure seems to be the opinion of those who have at all inquired into the matter, but the difficulty of language presents almost an insuperable barrier. We have to make adequate provision for the teaching of French and German in the Indian Universities if continental facilities are at all to be availed of. The same difficulty does not present itself in the United States, but I am afraid our students will, as a rule, meet with similar opposition there as in Great Britain.

On the whole, therefore, the problem of technological studies for our students (and other studies) will only be solved, if Institutions like the Tata Institute can be made to be successful and works started on lines suggested by Prof. Perkin.

D. N. MALLIK

BAKHAR

"The eye of the forts, and the face of the kingdom of Hind."

To define is to invite attack, and definitions of romance are many and various, but of a surety there is none that can quite rob Bakhar of its claim to be the most romantic feature of the valley of Sind. In form not unsuggestive of western build; reminiscent may be of the Edwardian castle that bore the imprint of an Arab East as it broke upon the Crusaders; its position between the two towns of Sakhar and Rorhi assisting to form a view that record has dwelt upon with pleasure for many a century. And more even than this gathering around it that atmosphere of the elusive with all its charm, that attaches to so many sites of Sind the origin of which persistently evades capture, its story is one that with no beginning opens in mystery. By chance or design again its proximity in name to Sakhar has furnished an alliterative jingle that like some of the catchwords of Burton has done more than sober recital of history to bring a retired valley into the light of general knowledge. At no other centre in the valley have the influences of desert and river so successfully combined to produce an atmosphere so lucent, and the unholy fascination of the unintelligible that dwells in the suggestions of a desert sunset, or the disturbing allure of the ephemeral beauty of opalescent hues that are too tender to last, are the gift of its air. And to this legend has added, in its name, associations of the dawn; for the name of the original settlement was traditionally changed to Ar-Bukr, when a holy *Sayad* with the lowing of the cattle at dawn, ar-bukr, came there to make his resting-place.[1]

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[1] The Tuhfat-ul Kiran gives the earliest name of Bakhar as Ferista and for the change of its name records "They say that when Sayad Mahomed Makkyee arrived there it was in the morning (Ar-Bukr) upon which he said 'Allah has ordained my morning in this blessed place.' It is also related that before this when the servants asked him where his abode should be fixed he said 'Where you hear the cattle at sunrise (Ar Bukr).' After a time a

It would be hard to find in Sind a feature more explanatory of its history than is the fort of Bakhar. Tradition ally the accidental successor to an Alor, ruined a few miles east by a legendary diversion of the river—a sequence falsified by the survival of Alor as a fort long after its decay as a town—its situation behind the desert of the north, its focus of the lines of invasion from Seistan and the upper reaches of the Indus demonstrates unmistakably the strategic development of its position. From the eleventh century onwards the ancient highway of travel, immigration and invasion from Irak through Makran, that made of the forts of lower Sind the first bulwarks against aggression, is superseded as a path of conquest, when the current of invasion sets in from further north ; and the decay of Bahmanabad and Mansura,[1] however legend may surround their end, is a logical antecedent of the rise of Bakhar.

Exerting its influence throughout six centuries the transfer of the strategic defence of Sind from its centre to the north, is one of the main factors in the creation of that self-conscious separation in thought of Upper and Lower Sind, that finds expression to-day in the popular jest that a buffalo of the north is superior to a man of the south. It explains the curious independence of Debal until the last ; the rise of the Sumrahs and after them of the Sammahs in the delta, and the comparative immunity of Tatha in its prime from aggression. It emphasises the persisting inclination of the south to lead its life divorced from that of the rest of the valley, turning still southwards for its most intimate connections. A potential agent, in short, of unity the chances of history have made its influence paramount in disruption. Its governors as

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change of pronunciation made the word Bukkur." Inconsistent with itself the same authority makes this Sayad leave Herat and Meshed in 1260 A. D. whereas in 1227 A. D. Nassirrudin Kabajah was besieged in Bakhar.

[1] Mc Murdo thought that the rise of Bakhar was subsequent to the fall of Alor. Alor is mentioned quite late and long after the latest date given to the traditional account of the destruction of the town by a diversion of the river that ran by it. The Ain-i-Akbari mentions the fort of Alor : the Tarikh-i-Maasumi also speaks of the governor of Alor.

Major Haigh more accurately makes Bakhar supersede Mansura.

wardens of the marches not infrequently attempt to carve out their own destiny ; to the Jams of Tatha they are a problematic help or a nucleus of resistance in the contest of rival claimants to the throne of the south.[1]

Now the history of Sind owes its somewhat amorphous monotony largely to the absence in its chronicle of any period of really unified rule ; even in the short brief day of Nasirruddin Kabajah or the more spacious days of the Mogul there is no real unity ; the north is always there ready to break away from the south, and the existence of Bakhar, strange to say, is indirectly one of the prime influences that have operated to deny Sind the advantage of a central rule. It was not as this that Sind history gave early promise. In the reigns of its Brahman rulers, who were before the Arab invasion, Sind looked westwards for an extension of its sovereignty, with the usual tendency of all empires to extend in the direction of the greatest pressure ; from the same west came the first invasion of Islam, and it is no fortuitous chance that around Bahmanabad and Mansura there grew up a semblance of unified sovereignty. In the days before the Ghaznis the dangers of the door that near the sea over the low passes lay open to the invader, produced a unity within the valley which disappeared when it fell to one half to be its defender, and to the other to forget in comparative peace the lessons of the past. Ex parvo multum: from the redirection of the current of invasion follow in sequence the rocord of petty strife ; the many failures to achieve unity that render the reading of Sind history unattractive ; follows too the existing cleavage between the north and south of Sind ; follows in fact the supreme influence for good and evil of the unique position of Bakhar.

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[1] C. P. Darya Khan's support of the minor Jam Feroz against rival claimants of Tatha. Equally resting upon possession of Bakhar is in 1555 the opposition of Sultan Mahomed Khan to Mirza Isa Tarkhan of Tatha and in Bakhar is the nucleus of resistance to the hated rule of Mirza Mahomed Baku Tarkhan.

In a manner almost traditional to the treatment of Sind history, conjecture has paid homage with no stint to the externals of that position. Tod adding to his many erroneous sketches of Sind described the river as near a mile wide on either side of Bakhar; with an unbridled enthusiasm characteristic of his age for traces of the great Alexander, he found the 'islandic Bekher' in the pages of Arrian, and then with happy forgetfulness of logic traced in the same fort the lineaments of the eighth century Arab fortress of Mansura. The traditions of its impregnability indeed and the seeming permanence of its surroundings were without a doubt the cause of these and other similar errors, that were consistent only in declining to recognise in a situation so unique a creation that did not of necessity possess a hoary past and this building-up of a theory upon little more than semblances is illustrated most clearly in Pottinger's etymological discovery that the Arabic Munsoor as meaning "defended" or 'victorious' must bear reference to the peculiar strength of the Bakhar stronghold.[1]

It is not however solely as a fort that the interest of Bakhar claims attention, for hardly less than this is its interest as a town, connected in a way that is not over clear with the town of Sakhar. Its first recorded appearance in the time of Nasiruddin Kabajah reveals a town with one fort and possibly even two forts upon a peninsula; it is still a town of Bakhar that with its suburbs Shah Hassein Arghun (1528) surrounds with a wall, and a fortified town that resists successfully the emperor Humayun. From 1572 A. D. onwards, however, the name of Sakhar introduces a new problem, and the confusion of the two names henceforward suggests that the latter is nothing more than an alliterative of Bakhar, consequent upon the division of the fort from the town by the river Indus.[1]

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[1] Pottinger found in Bakhar the capital of the Sogdi, though as Postans and Burton remarked if this were so it would be hard to explain the silence of the Greek historians as to any such geographical feature. Abu Fazl found Mansura in Bakhar and bequeathed another error for Tiffentheler, Vincent, Rennell, Tod, Pottinger to follow.

Mandelslo and Sir Thomas Roe both speak of a single city striding the river—the former's Backarhukon the latter's Buckar-Suckar, and priority in name is given to Bakhar. Others beginning with Salbanke in 1609 and ending with Kennedy in the last century transpose the names giving that of Sakhar to the island fort. Withington mentions Bakhar alone, whilst McMurdo in 1833 makes Seiggar a suburb of Bhakir, thus bringing up to the nineteenth century the subordination of Sakhar and the importance of the name, Bakhar.

The origin of Sakhar as is that of Bakhar is an unsolved question, but it would seem beyond doubt that its appearance coincides with some division of the ancient Bakhar. The Ain-I-Akbari does not mention Sakhar, nor does the Tarikh-I-A'Asumi in relating the siege of Bakhar by Humayun, but thirty years later Akbar enjoins the division of the governorship of Bakhar and Sakhar, and a bipartite or tripartite division of this military charge remains until in 1585 the whole is held as a *jagir* holding. When though the fort was definitely severed from the town it is impossible to say. Only in the last century the branch of the river that passes Bakhar on the west was artificially widened, and McMurdo wrote of its waters disappearing entirely during the dry season. And so even if Ibn Batuta (1333) describes Bakhar as a handsome city divided by an arm of the Indus, one need not assume even more than a seasonal division, for even to-day the river craft moving south invariably take the eastern channel, those going north with human labour against the stream equally invariably taking the western course.

Apart too from the still existing features of the western branch of the river adjoining the island of Bakhar, it is easy to mark with some assurance changes in the size of the island itself for in 1658 Manucci gives a detailed account of the island fort wherein he commanded the artillery on behalf of Dara Shukoh. He writes that the seven rivers only touched its sides for a pistol shot on the west and to musket shots on the east; describes too sallies from the fort by the garrison which resulted in the capture of the enemies' field-pieces, and gives for the island dimensions that particularly in breadth are much greater than those given by Kennedy two hundred years subsequently. The slow and gradual formation of the insular position of Bakhar is certain; uncertainty attaches only to the riddle of its name and that of Sakhar.

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[1] Bakhar is not mentioned in the Chachnama the early chronicles of the Arab conquest, nor is it alluded to in the time of the Ghaznivide Sultans. From the early thirteenth century Bakhar is a familiar name. In the reign of Akbar it is the capital of a province of the same name. Mir Maasum speaks of the villages and towns of Bakhar. Even up to 1815 it gives a name to a province of Multan (vid. East India Gazetteer of Hamilton).

Bakhar-Sakhar what is their secret? In the thirteenth century Akar and Bakar are names of two forts attributed to the islands or peninsulas of the Indus.[1] From alliteration thus through alliteration, for Mandelslo's Bacherhukon and Sir Thomas Roe's Buckar-Suckar seem but this, these names come down. The first is no uncommon name even in Sind; the second as a name for a riverain port has gained its seniority slowly, though it began its issue with Bakhar four hundred years ago. For centuries the constant objective of treaty yet not the actual spoil of conquest; the defender of the valley yet a factor making for disunion; withal its beginning shrouded in obscurity, its life chequered with the interest that accompanies all great change Bakhar 'the eye of the forts, and the face of the kingdom of Hind' has surrendered, victim of physical changes beyond its control, its birthright to another, and an alliterative jingle rather than a recollection of its eventful history may yet become its best preserver against the fate that overtakes the ancient memorials of Sind.

J. Abbot

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[1] 'Akar and Bakhar two forts on an island' Jahan Kushae. Akar and Bakhar two forts on two 'jazirahs' 'Jami 'ut-Tawarikh. The solution of conflicting record is made more difficult by the Arabic 'jazirah' being peninsula or island. Speaking of the same events namely the investment of Nasirrudin Kabajah the Jami 'ul Hikayat and the Taj-ul-Maasir speak of one fort only.

THE *JATRAS* IN BENGAL

An excellent and scholarly monograph was written at Zürich (Jan. 1882) on this important subject by Dr. Niçikānta Chattopādhyāy.[1] The learned doctor wrote another lengthy article in German on the same subject at Zürich in 1883.[2] This monograph is compact with important suggestions and it is a genuine attempt at investigating an untrodden subject; its value is enhanced by the fact that it makes a comparative study of similar dramatic compositions in Europe. His searching penetration into the subject at a time when genuine research-work in Bengali had not at all sufficiently advanced, places him as the pioneer of the work. He must have felt various other difficulties arising out of his residence at a place far removed from his native-land where Bengali reference-books could not be easily obtained. His amazing grasp of the subject and knowledge of several important languages made him specially competent to pass judgment in the present debatable subject. We first proceed to summarise his important findings and give our comment thereon.

The word *Yātrā*[3] comes from a Sanskrit verb meaning "to go." The word is quite apt in connection with the religious *processions,* marked by the splendour and magnificence as is still now evident in the procession (*Yātrā*) of

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[1] The Yātrās; or the Popular Dramas of Bengal, by Dr. Niçikanta Chattopadhyay, London: Trubner & Co.

[2] *Die Yatras oder die Volksschauspiele Bengalens,* by N. K. Chatterjee, in his *Indische Essays.*

[3] Rev. J. Long, in his *Descriptive Catalogue of Bengali Works* containing a classified list of 1,400 Bengali works and pamphlets which have issued from the Press during the last 60 years, with occasional notices of the subjects, the price and where printed, etc., says, "The Yatras are a species of Dramatic Action, filthy in the same style with the exhibition of Punch and Judy or of the Penny Theatres in London treating of the licentiousness or of the amours of Krishna. A mehtre with a broomstick in his hand always cuts a figure in them. We have the *Nal-Damayanti-Yātrāgān,* Nal's history dramatised in this form."

Jagannath at Puri. Semi-dramatic performances of religious themes were, again, called Yātras. The exact features of Yātrās in olden times are very difficult to estimate, but there are distinct references to cognate performances in old Hindu and Buddhist works. Dr. Chatterjee refers to the life history of two immediate disciples of Buddha's, of Maudgalāyan and of Upatisya where we have their "meeting at the occasion of a festival at Rājagriha, their behaviour during the several exhibitions of spectacles, their mutual addresses when the shows are over."[1] The date of Buddha's death is now generally placed at 487 B.C.[2] Naturally enough this incident carries us back to the 5th century B.C. when these two disciples of Buddha flourished and joined the festival and the spectacles referred to above. Even we can go back still further, for in the *Lalit Bistar*, Siddhartha is examined along with the other arts and sciences also in the Nātya in which he displays a genuine skill and perfection. Coming down to the days of Megasthenes (died about 291 B.C.) in the third century before Christ, we find him speak of the Çiva-cult "as being very predominant amongst the inhabitants of the mountains who, wreathed, anointed, carrying bells and beating cymbals, followed their kings during the festival of these gods, while Kṛṣṇa-cult had its seat amongst the inhabitants of the plains, especially the Çaurasenas." Lassen says, "according to by far the most trustworthy of the Greek chroniclers, Megasthees, the Indians of the mountains worshipped Dionysos or Çiva, while those of the plains worshipped Herakles or Viṣṇu, and induced quite especially in his incarnation as Kṛṣna." Happily we are in a position to prove, as Dr. Chatterjee, too, admits, that Kṛṣṇa was considered as an incarnation of Viṣṇu's already during the reign of Chandragupta (the contemporary and son-in-low of Seleukos Nikator), for when Megasthenes says that the Indian Herakles had gone through the whole earth and sea and purified both of evil, so it appears that to every antiquarian not bound through prejudice to any other opinions those words would mean nothing but the Indian dogma, which expressed in the shortest terms would be : "As often as there is a depreciation of virtue and an elevation of vice on earth, so often does Viṣṇu recreate himself."[1]

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[1] Csoma Körösi's *Analysis of the Dulva*, in *As. Res.*, p. 50.

[2] "The death of Gautama Buddha occurred in the early years of the reign of Ajatsatru not much later. There is reason to believe that the later event took place in about the year 487 B. C."—V. Smith's *Early History of India*. Third Edn., p. 33. Dr. Fleet regards 482 B. C. "to be the most probable and satisfactory date that we are likely to obtain'—*J.R.A.S.*, 1906, p. 667. It is given by the Ceylonese era at 543 B. C.

The antiquity of the Yātrās is further attested by this passage : "Dès le deuxième siècle avant notre ère l'histoire de Kṛṣṇa était le sujet de represetations dramatiques analogues aux solennités bachiques et à nos anciens mystères. Enfin, il est extrêmement probable qu'il faut voir ce personnage dans l' Heraclès dont Megasthènes, au debout du troisième siècle avant J.C. trouvait le culte dominant dans la plaineo gangetique"......which proves beyond doubt that festivals in honour of Kṛṣṇa, accompanied by dances and songs (which go so far back as the Vedic period) were frequently celebrated in the third century before Christ, and that the spectacles exhibited during these occasions were in all probability of the nature of Yātrās. Again, the Mahābhāsya of Pātanjali, belonging to a century later[2] not only refers to Kṛṣṇa and to his uncle Kansa whom he slew, but also to veritable dramatic representations performed by a class of men called the *Caubhikas* who could be nothing more or less than our actors of the present day, or by another class called the *Granthikas*, whom Dr. Chatterjee assumes to correspond to the Bengali *Kathakas* and the Greek *Rhapsodists*, "although it is said of these men that they divided themselves into two separate parties, the one belonging to Kṛṣṇa and the other to Kansa, the one with red and the other with black visages and that they tried to give back the entire history of Krṣṇa and Kansa from birth till death in expression, thoughts and sentiments answering as much as possible to nature." Weber maintains that a considerable period of time must have elapsed between these dramatical performances and the birth of genuine drama in Sanskrit which must have been profoundly influenced by Greek dramas.[1] What we are here concerned with is the nature and age of these semi-dramatic performances. They were always intimately connected with religious cult and it might have been the case that they were mimetics and pantomimes, pure and simple, without any feature of a genuine Yātrā-performance.[2] Anyway, the dialogic element was there, the narration of a story through these dialogues was there and the musical element too was there. But this state of the Yātrā performance, still in its swaddling clothes, received the literary finish and artistic culmination only during the age of Chaitanya in the 15th and 16th centuries, when all possible themes used to be manufactured from the huge *mythos* of Krṣṇa. The *pauranic* studies supplied other possible themes, but all along this career of the origin, progress and development of native Yātrā, we find a strange lack of the synthetic process which is the criterion of art. There is a regular patch-work and if there is any beauty at all, it arises out of a certain amount of looseness and absence of order.

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[1] See Barth, *Les Riligions del' Inde*, p. 100.

[2] See Bhandarkar, *Ind. Antiq.*, I, p. 299, and II, p. 59, also Goldstücker's *Panini* p. 288.

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[1] The last proposition of Weber's argument set forth just now has been refuted by eminent scholars.

[2] Both Dr. Chatterjee and Prof. Macdonell are unanimous in their opinion regarding the essential *Yātrā* character of Joydeb's *Git-govindam* in Sanskrit. Prof. Macdonell says in his *History of Sanskrit Literature*, pp. 344-45 : "the transitional stage between pure lyric and pure drama is represented by the *Git-govindam*...............which though dating from the twelfth century, is the earliest specimen of a primitive type of play that still survives in Bengal, and must have preceded the regular drama. The poem contains dialogue in the proper sense, for its three characters only engage in a kind of lyrical monologue, of which one of the other two is supposed to be an auditor, sometimes even no one at all.........the only three characters of the poem are Krṣṇa, Rādhā and a confidante of the latter. Its author, Joydeva, was probably a native of Bengal, having been a contemporary of a Bengal king named Lakshman Sen. It is probable that he took as his model popular plays representing incidents from the life of Krṣṇa, as the modern Yātrās in Bengal still do."

Dr. Chatterjee's conclusions on the exact nature of the Yātrā performance are worth quoting in full. He says, "that the Indian drama, like all other dramas, had its origin in cult, that it has passed through three distinct stages, of which the first was that of the Granthikas or the Kathakas, the second that of the Yātrās and the third that of the Natakas. In the first an incident is recited by one or many persons in one or two groups, accompanied by dance, mimics, music and song; in the second, the different characters of the incident are represented by different individuals, although these express their thoughts and feelings chiefly through the medium of songs and very imperfectly through dialogue—an essential property of drama; while in the third, the whole action is carried out almost exclusively by means of dialogue in addition to the appliances of dance, mimics, music, song and decorations, already made use of in the first two stages. To the first belong also besides the Kathakatās our modern comic rival-songs known under the various names of the Huli (? Holi songs ?), Pachali, Kavi, Tappa, etc., ; which find their analogues in the similar rival-songs (*Wettgesänge*) of the ancient Greeks or in the farces, sotties, etc., of the French."

In the Bengali national drama of the present age, one curiously finds all the corresponding methods of the present-day European drama reproduced *in toto*, conceding of course those foreign elements (*e. g.*, the foreign theme, the peculiar and lengthy stage-directions, sensation-hunting, the rapid development of the story not very often spread over five lengthy acts, etc.) which are wholly unsuitable to the genius of our language. Everything poetical or musical in Bengali has been appealing to the people owing to its clear expression of some national characteristic or other. For example, in all the *pāñchālis* and *yātrās*, though the themes are semi-historical or mythical, there is an invariable infusion of social or domestic features of Bengali life into the main story. Even in some of the best historical dramas of modern times by the late Mr. D. L. Roy, these national features prominently stand out of the perspective of the story though it may belong to the distant days of the Moghul or Gupta supremacy in India. This has, by no means, been made possible at the sacrifice of the technique of the play. The question of anachronism does not come in here. And in the Yātrās this is always the case. If it is a Yātrā on *Provās-Milan*, besides giving the composition a musical turn, the writer will somehow or other contrive to introduce some feelings that throb in every Bengali heart and some thoughts that are provoked in every Bengali soul.[1] Jaçodā is always portrayed as an anxious and grief-stricken mother suffering awfully for the absence of her darling, Kr̥ṣṇa; the girl-companions are always delineated as warm and loving hearts, the boy-companions of Kr̥ṣṇa are similarly painted as so many *alter egos* of the man-god; Nārad is, likewise, delineated as of a highly pugnacious spirit that is frequently a general characteristic of many old folk. There are some of the fixed characters wherefrom is evolved a composition always unique in theme and unrivalled in the throbbing sincerity. It is, however, noticeable that every sort or conceivable variation may be made out of a single theme containing stock-characters as described above. In a Yātrā play pure and simple, there is, however, wide room for a display of skill with regard to matter and manner. The following words will illustrate this remark.[2]

As soon as the performance opens, the *Adhikari* comes forward before the audience with his hempen homespuns narrating the scope of the play. The prologue thus introduced, the performance proceeds apace sometimes covering 48 hours or more with proper intervals.[1] Just at the completion of one episode, there is a chorus by a party of singers called *Juris* who sometimes play the passive part of a Greek chorus.[2]

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[1] These performances are frequently denominated as *Gītābhinai* or *Gīti-nātya*, as songs preponderate in them. Some of them, again, are entirely in songs and duets while the conversational element is absorbed by the musical.

[2] In spite of these diverse elements in the mode of treatment, there was a curious disdain of action so-called, to which M. Sylvain Lévi refers in his *Théâtre indien* : " Les mystèrs Krichnaïtes le thèâtre moderne du Bengale, les représentations des pays dravidiens, les marionnettes, les adaptations même des productions europiennes attestent unanimement l'amour du merveilleux, le dedain de l'action, la monotonie de l'intrigue, l' horreur des catastrophes tragiques, le goût des emotions atteneus. "—(p. 8.)

The Bengali chorus always exerts a soothing and chastening influence on the minds of the audience and the lyrical element is highly charming, though not of a high order. Yātrās trying to attain the dignity and status of a regular theatre at the present day would go so far as to introduce mimetics or gesture-plays, or even give a *vraisemblance* by puppets. For example, the *gostha* of Çrī Krṣṇa would be localised by gesture to indicate that the play-ground is a pasture-land, or by placing half-a-dozen puppet cows, painted white. Sometimes in the Greek and Sanskrit manner, glimpses of the locality or the exact situation are hinted at even in the course of the speeches so that the ignorant audience may make themselves easily familiar with the scene in question. The mute mob, gazing spell-bound at the place of performance at the central rostrum and sitting cross-legged or standing under and beyond a huge canopy, mightily enjoy the enactment, understanding every syllable of the speeches and at times loudly laughing before comic scenes and bursting into tears before pathetic ones. The ground is never left vacant with the primitive Yātrāwālās as there is a regular *mise en scéne* and no sort of green-room was provided for; but with the recrudescence of the old Yātrās in an improved form during the present day, a green-room is always engaged directly opposite to the place of performance and separated from the latter by a screen. So the modern form of Yātrā is like the modern theatrical performance, *minus* the stage proper with its inevitable concomitants and appendages. Boys always play the part of girls and women, and the moral atmosphere of a Yātrā party, just like the theatrical party during the Elizabethan days, is anything but healthy.[1] The history and progress of the old Bengali yātrās will be discussed in another paper.

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[1] In the Orissa province the performance is prolonged for days together.

[2] Lauchlan M. Watt in his *Attic and Elizabethan Tragedy*, pp. 14-15, speaks of the Greek chorus in these terms which apply equally well to these Bengali *Juris* with but little difference : "The *vox humana* rejoiced in the triumph of good ; it wailed aloud its grief, and sympathised with the woe of the puppets of the gods. It entered deeply into the interest of their fortunes and misfortunes, yet it stood apart, outside of triumph and failure. Only very seldom does it come forward with individual remarkable effect.........No gladness dragged it into the actual action on the stage, and no catastrophe overwhelmed it, except in storm of sympathetic pain. It was the ideal spectator, the soul being purged, as Aristotle expressed it, by Pity and Fear, flinging its song and its cry among the passions, and the pain of others."

MOHINIMOHAN MOOKERJEE.

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[1] For a faithful picture of a Yātrāboy's life, see Bankim Chandra's *Moōchirām Goōrer Jibancharit.*

STUDIES IN AYURVEDA OR THE ANCIENT HINDU MEDICAL LITERATURE

Fats and Oils

In the various Indian medical books there occurs a considerable volume of literature about fats and oils. As the exact meaning of a good deal of this is far from being clear, I have tried to collect in this article, some of the most salient points on the subject. It is expected that this will form a stepping stone on which further progress will be made. A certain part of this knowledge is suggestive and based on personal experiences of the writers, and as such may lead modern workers into new lines of researches.

Rubbing of Oil over the Body

The custom of rubbing oil[1] over the body is prevalent throughout the whole of Bengal and in many parts of India. The oil used is mainly mustard oil.[2] Cocoanut oil and sesamum oil (*til oil*) is also used to a limited extent. Common people and peasants use mustard oil. The Bengali cartmen and boatmen always carry plenty of this oil in bamboo bottles. These are hung with strings and their small openings through which oil comes out, are closed by long bamboo stoppers.

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[1] Massage of the body with oil soothes the nervous system in consequence of which the body can enjoy sound sleep.

Rubbing the body with oil makes it strong and work smoothly and steadily as in the case of a machine. Its soothing effect on the system enables the body to suffer greater strain and labour with ease.

Charaka, v. 28.

[2] Fat is obtained from two sources; animals and plants. Plant fat or oils are obtained from *til* (sesamum), mustard and seeds of various other plants. Animal fat is obtained from fish, birds and beasts. Fat is found in the milk, curd, flesh, adipose tissue and marrow of animals.

Charaka, xiii, 3.

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Peasants, when they can afford it, rub plenty of oil over their bodies. By vigorous rubbing the skin is throughly massaged, for it seems to soak in a good deal of oil. There is a Bengali proverb that oil gives strength by rubbing it over the body while *ghi* (clarified butter) gives strength by eating it.[1] People who rub mustard oil over their body generally possess very good skin, free from any evil odour and also free from skin diseases. In one family several children got scabs and could not be cured by plentiful use of sulphur, carbolic soap and other medicines, but they were cured within a short time by a vigorous use of plenty of good mustard oil. It is said that syphilis was introduced into India by the Portuguese.[2] It is worth while to study how far the spread of this disease had been prevented by the mustard-oil-rubbing habit of the Indians. Mustard oil which has a tendency to accumulate dust can also remove it. The part which is affected with dirt is thoroughly soaked with oil, this is done (specially in case of children), the dirt is softened within a short time and it is easily removed. Bengali mothers clean their children's faces with their own milk. The fat in the milk gives a soft glossy surface to the skin. Very young babies in Bengal and their mothers also are thoroughly soaked in mustard oil and allowed to remain in the sun for about an hour daily. It is said that this practice increases the natural immunity against diseases. After rubbing oil over the body the surplus oil must be removed from the skin by vigorous brushing with a rough towel and by use of plenty of water. The oil that is put on the head must be completely removed during bathing by application of plenty of water, otherwise it will induce headache in delicate people. For this reason many middle class people in

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[1] The oil of *til* (sesamum) is the best for the purpose of increasing strength. Castor oil is the best fat for laxative purpose. But *ghi* is the best of all fats.

Charaka, xiii, 4.

[2] In Kaviraji books syphilis is spoken of as फिरङ्ग रोग।

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Bengal, instead of using mustard oil on their head use sesamum (*til*) or cocoanut oil. There is a popular belief that sesamum oil has special cooling properties, due to which, one who uses it is liable to be attacked with catarrh in the beginning. Probably for this reason, and also for its antiseptic properties mustard oil has replaced *til* oil though the latter has been so highly spoken of in Kaviraji books.

FAT AS FOOD

In Bengal fat from the body of animals is not as a rule used for food. Fat from milk is most liked by people. Of the different butter fats, that obtained from the cow is considered to be the best.[1] The peculiar smell of this fat is highly relished; whereas that of the buffalo[2] is not so relished though it is considered to be a very nourishing food. The high price of cow-*ghi* has led unscrupulous dealers to manufacture a spurious article by imitating its smell and colour. Buffalo fat is also now adulterated with fat obtained from various dead animals. Common people cannot use *ghi* which is very costly. They use mustard oil instead. Sesamum oil is very seldom used in Bengal as food, though it is used as such in other parts of India. Cocoanut oil is used to a very limited extent in Barisal but not in other districts of Bengal. But it is extensively used in parts of Madras. About thirty years ago linseed oil was used in a few districts of Bengal for cooking purposes, but it is no longer used for this purpose. In many parts of Bengal at times the fat contained in Hilsa fish forms an important item of the fat food of the people. Hankering after fatty food is a common passion among all classes of people. Well-to-do people take various foods cooked with *ghi* and poor people, who cannot use *ghi* on account of its high price, use mustard oil or oil of ground nuts. It seems that city-dwellers use more fat than villagers. It has been said that the amount of pure fat now used amongst people is much greater than formerly. But there is at present no means to prove that the actual amount of fat in the food of the Bengalis has increased. For, when fish and milk were much cheaper and plentiful they supplied the largest proportion of the food fat.

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[1] गव्यं विशेषेण चक्षुष्यं वृष्यमग्निकृत् स्वादु पाकरसं शीतं वातपित्तकफापहं ॥

इत्यादि भावप्रकाश, पूर्व्वखण्ड, घृतवर्गे ।

[2] माहिषन्तु घृतं स्वादु रक्तपित्तानिलापहम् ।

शीतलं श्लेष्मलं वृष्यं गुरु स्वादु विपच्यते ॥

भावप्रकाश, घृतवर्ग ।

VARIOUS USES OF MUSTARD OIL

Mustard oil is the most important fat used in the diet for food of common people. A small amount is eaten raw with fried rice or boiled or roasted potatoes and with other fruits and roots. But the injurious effect of using too much raw mustard oil is well known. Before mixing it with *dal* or curries it is thoroughly boiled to evaporate all (or most of) its irritating principle.[1] Mustard oil is really a very cheap article of diet which is not very well known, one seer of mustard oil has got almost the same heat value as that of two and half seers of rice. Cocoanut oil (when fresh and free from smell) and sesame (*til*) oil, being free from acrid principles are even better food than mustard oil.

FAT AS FOOD (MODERN IDEA)

A few years ago physiologists considered fat as a concentrated but not absolutely necessary food. The importance attached by the Hindoo books to fat as food[2] was considered not very well founded. But in recent years our knowledge about fats has been considerably increased. In the light of modern research fats are considered an extremely important constituent of diet. When people got plenty of fat in flesh, milk and eggs, attention was not directed to its importance. But during the war there was a fat famine in many countries of Europe. Due to the deficiency of fat various diseases are developed, and children cease to grow. It has also been found that butter is the most important of fats. Fat from the flesh of animals or oil or artificial butter cannot replace butter fat. Butter fat contains an important constituent of food, called fat-soluble vitamin, which is absolutely necessary for the growth of children. For want of this substance growth stops. This substance is also found in green vegetables, and herbivorous animals like the cow obtain their supply of vitamin from grass. The milk of cows which are fed on fresh grass is richer in vitamin than that of cows which are fed on dry grass or straw; for during the process of drying a good deal of the vitamin disappears. Vitamin is also considerably damaged by heat. Thus butter contain much more vitamin than *ghi* which is produced by heating butter. A much larger quantity of *ghi* than butter is required to supply the vitamin content of food. Probably the difficulty of preserving butter led people to store it as *ghi*.[1]

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[1] Alyl-rso-thio-cyanate is the pungent principle present in mustard oil.

[2] *Cff* the Charvaka saying, ऋणं कृत्वा घृतं पिबेत्।

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[1] Rickets is no doubt another deficiency disease. Infants are usually fed upon a diet containing too much starch and sugar and too little fat and protein. The observations of Bland-Sutton at the London Zoo rather point to the deficiency of fat as being the more important. A lioness there was unable to suckle for long and litter after litter of cubs had died of rickets. Investigation of the diet showed that they were fed upon London cab-horse which naturally did not supply any fat, and their little teeth were not able to crush the bones and obtain the marrow. When they were given milk, cod-liver oil and pounded bones they did excellently.

Short, *Newer Physiology* (1914), p. 5.

There is a fat-soluble vitamin essential to growth present in butter and animal fat margarine but not in vegetable oil margarine or lard, present also in green vegetables which form the complete food of an herbivorous animal.

Hill and Flack, *Text Book of Physiology*, p. 338.

WHITE RICE AND GHEE

It is well known amongst Hindus that if a man wants to live on white rice instead of brown rice, he must take plenty of *ghi* and milk. If any one persists in using white rice without taking the above precautions he is sure to be affected with various digestive disorders. This observation is significant in view of the recent work about vitamin. It is now known that in Rangoon the Chinese who take white rice are more apt to be attacked with beriberi than the Madrasis who use brown rice. Also people who use more fat and protein in their diet are not so easily attacked with beriberi as others who take very little of fat and protein but plenty of carbohydrates.[1]

Ghi IN SNAKE-BITE, DOG AND JACKAL-BITE

In villages men bitten by dogs, jackals or snakes are given plenty of *ghi* to drink. They think that this counteracts the poisons of animals. A good deal of modern

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So also in *Bhāvaprakāṣa* (*Parva bhaṇḍa Navanita varga*) it is said: "Butter is good for boys and old men and other people, but it is particularly good for children; it acts like nectar in such cases."

And Charaka, says (xiii, 8) "Marrow increases strength, lymph, adipose tissue and marrow. It is very useful for increasing the strength of bones."

[1] The outstanding feature of the incidence of beriberi in the Straits is that while the Tamils are exempt the Chinese suffer severely. Rice is the main article of diet with both races; but with this difference that whereas the Tamils store their rice and boil it in husk, the Chinese use husked rice, such as we are accustomed to in this country, though of course with us rice is a very much less important item in the daily dietary. The Chinese are extremely prone to beriberi. The Tamils very seldom suffer. This cannot be due to any racial peculiarity, because Tamils in prison are fed on husked rice and are just as liable as the Chinese.

Short, *Newer Physiology*, p. 2.

The replacement of fat by excess of carbohydrate leads to the retention of water in the body. Fat starvation causes a form of dropsy.

Hill and Flack, *Text Book of Physiology*, p. 336.

work suggests that there is an intimate connexion between fat and the processes of hæmolysis and immunity.[1]

Ghi AFTER CHILD BIRTH

Women after child birth are given plenty of fats to take in various forms. This is said to dry up the body and give rapid nourishment to it.[2]

MUSTARD OIL AND MALARIA

The habit of the peasants of carrying bamboo bottles, containing mustard oil whenever they go out, has been referred to above. Carters and other village messengers have to sleep often in exposed places or in jungles full of mosquitoes. Before sleep they rub mustard oil over their body particularly on the face, hands and feet-exposed parts of the body. This acts as a preventive against mosquito-bite; probably they are kept away by the smell of the oil. The Italian peasants carry garlic round their necks for the same purpose. The active principle in garlic as well as in mustard oil is of the same nature. In a popular village story a father when bidding farewell to his son who was going to join a *jatra* (wandering theatrical party) gave him the advice to rub plenty of mustard oil all over the body.[3] It may also be pointed out that the mustard oil prepared in the mills, and which is used by poor people on account of its cheapness, is inferior in its antiseptic property to the oils prepared by the old-fashioned mills driven by bullocks. It is worth considering if this has any connection with the spread of malaria in Bengal.

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[1] *Vide* Schryver's *General Characters of Proteins* (the role of fat in vital phenomena).

[2] धन्वभूमिजातां सूतिकां घृततैलयोरन्यतरस्य मात्रां पाययेत्, पिप्पल्यादि कषायानुपानं स्नेहनित्या च स्यात् त्रिरात्रं पञ्चरात्रं वा ।

सुश्रुत, शारीरस्थान, गर्भिणीव्याकरण, श्लोक १६ ।

[3] তেল মাখবে আরা খাবা ।

CATARRH AND MUSTARD OIL

People apply mustard oil to the nose and ear to prevent these organs being attacked with cold. In case of cold in the head the oil is thoroughly rubbed on the feet before going to sleep. When children suffer from cold or cough and feel difficulty in breathing, mustard oil is applied to their nose and this facilitates the breathing process. In these cases as well as in digestive disturbances warm oil is rubbed over the abdomen, the chest, neck and nose of children. The irritating principle of mustard oil (*sinigrin*) stimulates the nerve ends of the skin, which *sinigrin* is reflected to the internal organs, thereby ensuring a larger supply of blood to these. The action of mustard oil is in these cases similar to poultice, hot fomentations, and irritants like iodine.

USE OF FAT IN TUBERCULOSIS

That fat is a very useful remedy in tuberculosis is well-known in Bengal. Not only such patients are given plenty of fat in their diet but a large number of Kaviraji medicines used in this disease consists mainly of fat. A Bengali professor was once cured of it by excessive use of fat in food prescribed by an ascetic, whom he saw when he failed to get any relief from ordinary medical treatment. He was given daily a large quantity of *ghi* to drink. At first he had diarrhœa but he still persisted in the treatment. The quantity of *ghi* was gradually increased and after some time he could drink and digest a large quantity of raw *ghi* without much discomfort.[1]

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[1] "The most favourable substance (for fattening purpose) is fat," says Carl Von Noorden. "This requires but little expenditure of force on part of the digestive organs and is deposited as fat with almost no loss of energy. Practical medicine still hesitates to make effective use of fat as a fattening medium and generally gives preference to the carbohydrates. I have often pointed out that this should be abandoned, and that large and even enormous amounts of fat (neglecting here certain pathological changes of the stomach and intestines) are excellently borne and bring about results which can scarcely be equalled, not to say surpassed by extra administration of carbohydrates."

Von Furth and Smith, *Chemistry of Metabolism* (1916), p. 400.

FAT AS A COOLING DIET

In Ayurveda fat is considered to be a very cooling diet.[1] I made some experiments about this and contrary to popular opinion it was found that fat is really a "cooling diet" as the Ayurveda calls it. This is also corroborated by modern physiology. Popular opinion in this country is that fatty food gives rise to excessive formation of body heat producing discomfort in summer. The origin of this belief is I think, due to the fact, that fat, though a tasteless food itself, imparts taste to other food and also because of its concentrated nature, fatty food is apt to be taken in a large amount increasing the total heat value of injested food enormously. I made experiments in summer and noted, that provided the heat value of the food remained the same, a food rich in fat is more cooling, *i.e.*, gives rise to smaller amount of body heat than with any other food. The specific dynamic action of fat is slightly less than that of carbohydrate food though after starvation intake of fatty food causes greater increase of metabolism.[2]

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[1] Fat is called a स्नेह (*sneha*) which means a cooling substance.

[2] Voit found that during starvation or with insufficient protein diet addition of fat to the food increased the total metabolism. When sufficient protein was being supplied the addition of fat caused no increase in the total metabolism, the whole of the fat in the food being laid on as fat in the body. The stimulating effect of fat on metabolism is but slight.

Starling, *Principle of Physiology* (1st ed.), p. 711.

Fat is easily digested and does not cause the rise of heat production which protein and to a lesser degree sugar does.

Hill & Flack: A Text-Book of Physiology, p. 340.

It has been calculated for the caloric value of food taken, that there is expended in heat production during digestion and assimilation :—

Fats	about 2·5	per cent.
Carbohydrates	9	...
Proteins	17	...

Hill Flack, *Test Book of Physiology*, p. 343.

When fat is mixed with salt it is quickly digested and makes the body cool.

Charaka, xiii, 54.

[This is a new idea. Does salt help the digestion of fat? We know that bile-salts act as co-enzyme to lipase. Can salt take its place? It is also a popular belief that sugar helps digestion of fat.]

FAT AS SURGICAL DRESSING AND IN MEDICINE

Fat is used extensively by Kaviraji practitioners as a surgical dressing both as aseptic and antiseptic application. Castor oil is a household remedy for cuts and bruises in Bengal. Mustard oil with salt is used for cleaning the teeth and also as a mouthwash. The antiseptic properties of this oil removes the fetid smell in the mouth.[1] Suet is very useful for broken or pierced part of the body.[2] *Ghi* which has been thoroughly boiled is used for sores and bruises. On account of the high boiling temperature of fats and oils, these substances can very easily be rendered aseptic. The non-coagulative property of fat is also useful in this respect as by a moderate draining of blood the poisonous substance will be completely or partly removed from the system and also the new blood will be able to do the repair work better. Fat particles will here act as emolient covering to the delicate exposed tissue-cells and will probably act as food to a certain extent. Kavirajes also mix many medicines (herbs, etc.) with fats and oils and thus increase its antiseptic or medicinal properties.[3]

GHI AND THE *HOMA* CEREMONY

A certain amount of ghi is used by the Hindus during their Homa ceremony. This ceremony is held in connexion

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[1] Gargling with oil contributes to the nutrition of our mouth, makes the food tasteful and adds to the strength of our teeth so that they do not ache and do not decay soon.

Charak, Sut., Chap. 5, Sl. 24.

[2] Suet is very useful for a broken or pierced part of the body. It gives strength and is very useful to those who work hard. Charaka, xiii, 7.

[3] The following well-known Kaviraji medicines contain *ghi* :—

च्यवनप्राश, अमृतप्राश घृत, छागलाद्य घृत, पञ्चतिक्त घृत, वासक घृत, ब्राह्मी घृत, अश्वगन्धा घृत।

The following contain oil :—

दशमूल तैल, रास्ना तैल, महानील तैल, गुडुच्यादि तैल, मध्यमनारायण तैल।

Charaka on gargling with oil :—

हन्वोर्बलं स्वरबलं वदनोपचयः परः।
स्यात् परञ्च रसज्ञानमन्नेच रुचिरुत्तमा॥
न चास्य कण्ठशोषः स्यान्नोष्ठयोः स्फुटनाद्भयं।
न च दन्ताः क्षयं यान्ति दृढमूला भवन्ति च।
न शूलान्ते न चाम्लेनहृष्यन्ति भक्षयन्ति च।

Charak, Sut., Chap. 5 Sl. 25.

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with the *puja* to a god; and also for the purification of a room or house which is supposed to be haunted by some evil spirits. When several deaths or illnesses have occurred in a particular room or house, these are supposed to be haunted by some evil spirits, and people try to drive them by the *Homa* ceremony. This consists in preparing a fire in the room, with woods of some specified trees (*e.g., Ficus Religiosa, Aegle Marmelos, Mangifera India.* etc.). The priest from time to time pours into the fire, with chantings of *mantras, ghi* (clarified butter), rice, water, fruits, and leaves of *bel* (*Aegle Marmelos*).

It is said that the ceremony renders the rooms or houses healthy. The beneficial result, if any, may be due to two causes. First, by the hypnotic influence it produces on the inmates. The ceremony is a very imposing one. It takes from one to three hours to complete the whole thing. The priest chants *mantras* and offers various offerings to the fire god. These soothe the distracted nervous system of the inmates and give them courage by hypnotic suggestion.

Secondly, the room really undergoes purification through the process and any noxious disease germs which might have got a lodgement in it are removed or destroyed in the process. First of all the room undergoes thorough cleansing with water before the ceremony can take place. Then a good deal of smoke is produced by the fire which is seldom allowed to burn freely causing complete combustion. From time to time Ganges water, milk, raw fruits and green leaves of the *bel* are added to it; these nearly extinguish it and considerable amount of smoke is produced. The result of the operation is that the whole room, even the house, remains filled for two to three hours with smoke containing water vapour, carbolic acid, creosote and the essential oils of flowers and *bel* leaves (these last contain a good deal of essential oil). Thus every crevice and corner of the room is more or less completely disinfected by the process.

Incidentally I may mention the following observations about smoke, which I made some time ago. In a village most of the inhabitants had their kitchens close to their living rooms. As the ventilation was defective smoke had free access to every part of the house; a considerable part of its walls was blackened by a thick layer of soot. No plastering had been done within the memory of a generation. I remember some of these smoky houses were absolutely free from any tuberculosis. Two families, who grew rich, built new rooms at some distance from the old house, which was now used as kitchen and they lived in the new one. It is very curious that several cases of tuberculosis occurred in these new houses. In the course of twenty years three or four members in each of these houses have been carried away by this fell disease. From these observations I have come to the conclusion that within limits, smoke is not an unmitigated nuisance, but is a good disinfectant. If a room or house is not properly purified by the sun's rays and currents of fresh air, it is far better that it should be purified by smoke. The smoke of wood is probably better than that of coal.

OBESITY AND ITS TREATMENT

Hindu ideas about obesity and its treatment can be very favourably compared with the modern physiological knowledge on the subject. The following passages from Charaka may be quoted almost verbatim in any modern text-book.

गुरुस्निग्धाम्ल लवणान्यतिमात्रं समश्नताम् ।
नवमन्नञ्च पानञ्च निद्रामालस्य सुखानि च ॥
त्यक्तव्यायामचिन्तानां संशोधनमकुर्व्वताम् ।
श्लेष्मा पित्तञ्च मेदश्च मांसञ्चातिप्रवर्त्तते ॥

(Obesity is caused by too much eating and drinking, too much sleep, idleness, want of labour and thought. Charaka, xvii, 49).

तदतिस्थौल्यमति सम्पूरणादगुरुमधुरशीतस्निग्धोपयोगाद् व्यायामाव्यावायादि दिवास्वप्नाद्धर्षनित्वादचिन्ताद्वीजस्वभावाच्चोपजायन्ते ।

It is also caused by hereditary influences, sleep at day time, contentment, sexual continence and also by eating too much fat and sweet things. *Ibid*, xxi, 4.

प्रजागरं व्यव्ययञ्च व्यायामं चिन्तनानि च ।
स्थौल्यमिच्छन परित्यक्तुं क्रमेनाभि प्रवर्द्धयेत् ॥
स्वप्नो हर्षः सुखा शय्या मनसो निर्वृतिः शमः ।
चिन्ता व्यावायव्यायाम विरामः प्रियदर्शनम् ॥
नवान्नानि नवं मद्यं ग्रामानूपौदका रसाः ।
संस्कृतानि च मांसानि दधि सर्पिः पयांसि च ॥
इक्षव शालयो माषा गोधूमा गुड़ वैकृतम् ।
वस्तयो स्निग्धमधुरा स्तैलाभ्यङ्गश्च सर्व्वदा ॥
स्निग्ध मुद्धर्त्तनं स्नानं गन्धमाल्य निषेवनम् ।
शुक्लोवासो यथाकालं दोषाणामवसेचनम् ॥
इत्यादि कार्श्यमाधत्ते नृणामुपचयं परं ।
अचिन्तनाच्च कार्य्याणां ध्रुवं सन्तर्पनेन च ॥
स्वप्न प्रसङ्गाच्च नरो वराह इव पुष्यति ॥

A lean man can be fattened like a hog if he gives up all exercise—physical or mental, gives up worrying about things, eats sumptuously, sleeps a good deal and generally speaking lives a comfortable life. The opposite condition helps to reduce fat. *Ibid*, xxi, 16 ff.

"Fat men can eat and digest a good deal of food." *Ibid*, xxi, 6.

सततञ्चोपचर्य्याहि कर्षनै र्वृंहनैरपि ॥
स्थौल कार्श्ये वरं कार्श्यं ॥

"Obesity is to be cured by fasting. Leanness is better than obesity." *Ibid*, xxi, 10-11.

Compare with these the following passages from recent works on Physiology (Hill):

(1) "Fat can be put on by (*i*) increased food, (*ii*) by lessened expenditure of energy, (*iii*) by these two causes acting together." (p. 306.)

(2) "Less food and more exercise and especially the latter is the one and only remedy for fat people." (p. 310.)

(3) "Lessening of water in the day's ration has been extolled as a cure for obesity, firstly by drying the body and secondly by lessening the appetite." (p. 307.)

(4) "In seventy per cent. of the cases of obesity there is a hereditary tendency."[1] (p. 308.)

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[1] As a cloth can only soak a small quantity of water, and if more water than this be supplied to it, it will go out of the cloth, so a man can digest a certain quantity of fat. If he eats a large quantity of fat, the undigested fat goes out with the fæces.

Charak, Sut., Chap. 13, Sl. 53.

INDIAN FISCAL PROBLEMS

Theoretically free trade is preferable to protection. Free exchange is the rationale of all trade, both domestic and international. International trade enables a country to procure at a cheap rate goods which she cannot produce more economically. To disturb free trade is, theoretically speaking, to restrict the geographical division of labour and divert industry and labour to less advantageous channels.

A student of economics would welcome free trade as much as a student of history would welcome universal peace. But in the present state of the world no sane politician can think of completely disarming his country so long as other nations keep up their fighting strength intact. Similarly no practical economist can insist on free trade for his country merely for its theoretic advantages when most of the other states of the world have adopted the system of protection and are helping their industries with tariffs, bounties, subsidies and transport facilities. The last war has caused a good deal of change in old ideas and conceptions and even England pledged to Free Trade passed the Safeguarding of Industries Act under a Liberal Government.

Protection is, therefore, a matter of necessity rather than of choice—and specially so in the case of India. She is economically weak, industrially backward and is politically under an alien domination. She wants to foster her industries and to stand on her own legs. She is at present almost in the same condition as Germany was a century ago—a country producing and exporting food grains and raw materials and importing manufactured commodities. Her chief exports are jute, raw cotton, food grains, hides and skins, tea, seeds, etc.,—these amounting to about 75% of her total exports—mostly articles of subsistence or raw material. Her chief imports are cotton manufactures (including twist and yarn) alone amounting to about a third of her imports, iron and steel, machinery, sugar, railway plant and rolling stock, hardware, mineral oil and silk—aggregating about two-thirds of her total imports—mostly manufactured goods.

Like Germany of the last century India has to make her industrial progress " in the face of the overwhelming industrial supremacy of Great Britain." A third of India's exports goes to the United Kingdom. The pre-war average was 25%, in 1919-20 it rose to 30%, but in 1920-21 owing to abnormal causes it dropped to 22%. On the other hand nearly two-thirds of her imports comes from the United Kingdom. The pre-war average of British imports was 63%, in 1920-21 it was almost the same—61%.

A reasoned policy of Protection is needed to enable India to make her industries stand the full force of foreign competition backed by the more efficient labour, the greater business capacity and the mechanical skill and enterprise of the more advanced states. India has abundant natural resources, specially in raw materials, for building up her industries. As Mr. Carnegie said, " The seat of manufacturing is now, and will continue to be more and more, simply a question where the requisite materials are found under suitable conditions. Capital and labour have lost the power they once had to attract raw materials, these now attract labour and capital." (Rectorial Address at St. Andrews, pp. 7 and 8). Prof. Marshall in his recent work on " Industry and Trade " also observes that " manufactures on a large scale can be created, wherever the resources of nature are favourable, much more quickly than was possible before the recent developments of mechanical process of production." (pp. 169-70.) Labour and Capital would move towards raw materials in India. At present Indian capital is shy and Indian labour is comparatively inefficient. Machinery has got to be imported from foreign countries and specially trained agency is wanting here to handle or repair them propery.

Besides these handicaps the policy of *laissez-faire* of the Government is to a large extent responsible for the industrial backwardness of India. How can the local industries stand in competition with foreign rivals who are specially favoured by the action of their own states or by the inaction of the local Government? To cite a telling instance, in pre-war days German paper was sold in Bombay at cheaper rates than in Hamburg. Again, the local industries have seriously suffered from the disparity of freight rates. The freight of paper from Hamburg to Lahore was Rs. 52 per ton, while that from Raneegunge to Lahore was Rs. 60. Again, the Printing Ink manufacturers in India pay a duty of 11% on the raw materials they have to import. But under the existing tariff the foreign manufacturers have to pay an import duty of only $2\frac{1}{2}$%. Thus far from enjoying any facilities the Indian manufacturer is placed under a comparative disadvantage of $8\frac{1}{2}$%. To cite one more instance, the freight of coal from the Bihar coalfield to Bombay is Rs. 15-2 per ton plus a surcharge of Rs. 2-6, making a total of Rs. 17-8. But the freight from Cardiff to Bombay is only 17*s*. And neither does the Indian trader receive any transport facilities or concessions, nor is any duty imposed on the foreign producer to make him meet the local producer in the home market on equal terms. Under such circumstances is it possible for the Indian industries to grow successfully to maturity?

The difficulty of the Indian producers is not merely the greater cost of production but the absence of any protection from the state as against the special facilities enjoyed or likely to be enjoyed by their foreign rivals. Protection will levy a tax on foreign imports and thus raise prices and thereby prevent the domestic producer from being undersold by the foreign competitor and make up for his higher cost of production. And when the industry is thus assured of a market and of a reasonable chance of success, Indian capital will flow to it.

But duties should not be levied indiscriminately on every imported article—without due appreciation of the needs and possibilities of the industry concerned. We should not make a fetish of Protection. The tariff is not the panacea of all economic evils. It cannot by itself create industries. It can at best create conditions favourable for local capital and enterprise being utilised in home industries. By levying duties and by raising prices a country can avoid foreign competition and can produce every article she needs. But that will be a suicidal policy to follow—to set up a prohibitive tariff all round and to destroy international trade completely. It will levy a terrible burden on the consumers which no people in the world can bear. The nation should not be sacrificed in the interests of a few.

The question of industrial regeneration of India is a problem both political and economic. It is not merely protection that made the progressive countries of the west industrially great. Talking of England, Prof. Taussig says "Clearly several causes contributed to the remarkable economic advance of that country during the 18th and 19th centuries.... But the most important of all has been the atmosphere of freedom, and the clear avenue to conspicuous success which has been open to all who were capable and strong. Political freedom came first, and soon was supplemented by industrial freedom. Hence the all-pervading spirit of ambition, resource, enterprise."[1] Protection can at best help by enlisting and by stimulating local resources and enterprise in trade and industry and by securing them against premature death by the formidable competition of powerful foreigners.

The tariff policy in the past had been influenced to a large extent by British Commercial interests and exercised an insidious influence on Indian industries—reducing India to the position of a producer of raw materials for foreign manufactures. The most galling instance is the Cotton Excise duties which, as Mr. Gokhale pointed out, "were levied not because the Government of India or the Secretary of State thought it desirable to impose them, but because Lancashire dictated them that these duties should be so imposed."

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[1] Free Trade, the Tariff and Reciprocity, p. 23.

The existing tariff has been framed for purposes of revenue and exercises a mild protective influence in a few cases—*e.g.*, in the case of cotton manufactures which enjoy protection of 7½% in the difference between the 3½% *ad valorem* excise duty and the 11% import duty. The claims and interests of Indian industries are not duly considered in framing the tariff. It should be framed more discriminately and should take due note of the article it would tax as well as of its possible influence on domestic industries. It should be framed chiefly with a view to further Indian industries. A continuance of the present tariff would stand in the way of India's industrial progress and would affect seriously some of the industries which had grown up during the war.

The principle of Protection should thus be adopted. Protection should be given to industries which cannot grow without such shelter, which stand a reasonable chance of success and for which the country has natural advantages or industrial aptitude. And the tariff should be devised accordingly—levying duties on articles concerning the industry. The duties may be varied or fresh duties may be imposed from time to time as the need would arise.

NIRMAL CHANDRA CHATTERJEE

THE ABBASIDS IN ASIA

Beginning of the fall of the Caliphate and the rise of independent dynasties. From the accession of Wathiq to the death of Al-muktafi.

The five year reign of Wathiq, a son of Mutasim, offers nothing but a series of insurrections which were, for the most part, suppressed by the help of the Turkish soldiery. In Syria once more the Omayyads raised their heads; on the Euphrates the Kharijites; in Arabia the untamed Beduins; in Persian Iraq the Kurds and the Sunnis in Baghdad itself. Under Wathiq the persecution of the Sunnis continued, and even in the exchange of prisoners with the Byzantines only those were ransomed who professed the court creed. The Caliph himself cut a man to pieces because he dared to subscribe to the doctrine of the eternal character of the Qur'an.

Wathiq, moreover, was a cruel voluptuary and gave himself up to all manner of ugly indulgences. So thoroughly was he detested, and by all, that they conspired to take away his life. The conspiracy, however, was detected and frustrated, but soon after he died (10th August, 847).

Wathiq's death was so sudden that he could not make any arrangement regarding his successor. Many thought of doing homage to his minor son; but Wasif, chief of the Body-guard, resisted this proposal and, at his instance, Mutawakkil, a brother of Wathiq, was proclaimed Caliph.

Mutawakkil inaugurated his reign by causing, in most painful circumstances, the death of the Wazir who had declared for the son of Wathiq, and by extorting immense sums of money from his friends and sympathisers. The spiteful Caliph let the Turkish general Itach die of thirst in jail because, in a merry mood, he had shown disrespect to the

Commander of the Faithful.[1] Mutawakkil was anxious to free himself from the foreign chieftains; but, to succeed in this, he must needs seek and win over the affection of the Arabs. To attain that end, he altered the state religion—hitherto ascendant at the court—and reverted to the creed of the Sunnis. Not satisfied with this only, he went the length of ordering the execution of the Mutazalites, and also of those who ventured to speak ill of the first Caliphs, or well of Ali. He further ordered the grave of Husain to be demolished, and the ground on which it stood turned into cultivation.[2] He ridiculed Ali and persecuted his descendants. This policy aroused the anger even of the Sunnis; for though they did not, like the Shiites, worship Ali as God, they nevertheless held him in honour and esteem as the son-in-law of the Prophet and a *quondam* Caliph. As a stern Sunnite he revived all the earlier insulting measures against the Jews and the Christians, and even added many fresh ones. They were compelled to wear a yellow piece of cloth over their dress; to use wooden stirrups; to affix two balls to their saddles; on their houses they had to set up a wooden figure representing the devil; and even their very slaves had to use the yellow badge like themselves. They were overwhelmed with fresh taxes, and many of their churches and synagogues were converted into mosques[3].

These severe and drastic measures against the Alides and the Christians should not be put down to religious intolerance alone. These continued their intrigues in silence against the Abbasids, and stirred the anger and resentment of the Caliph against them by a rising in Hims; an insurrection in Armenia; and by predatory incursions into Muslim territory. A Greek fleet, landing in Damietta (853), devastated that town, and plundered many small places on the sea-coast, or at the mouth of the Nile. In Armenia the governor of the Caliph was slain, and the Armenian princes fought for independence. They were, however, for want of unity and co-operation, defeated by Bogha, who advanced as far as Towin and Tiflis. The Byzantines repeatedly raided the frontiers of Syria and Mesopotamia, and slipped away with rich booty and numberless prisoners. Not until his last year (860-861) could Mutawakkil, after several successful encounters, take vengeance upon the Byzantines and make predatory excursions as far as Sinope. Besides these wars and insurrections—one other rising in Adherbaijan, suppressed by Bogha, the younger, must be mentioned in passing. Nor can we ignore the insurrection in Sijistan, which was put down by Abdullah Ibn Tahir, but which eventually laid the foundation for the rule of the Saffarides which soon extended over the entire East. To conclude, even the Bedja, a Berber tribe, roving about in the west between Egypt, Nubia, Abyssinia and the Red Sea, made the whole of upper Egypt the scene of their predatory activity.[1] Against them Mutawakkil despatched 20,000 soldiers, to attack them simultaneously from the Red Sea and Egypt. Their chief surrendered and was forgiven, although he carried a wooden idol with him. This is suggestive of the fact that, when policy demanded, the Caliph could control and conquer his religious fanaticism.

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[1] Itach supported Wasif on the occasion of the election of the Caliph

[2] Suyuti, p. 362.

[3] Weil, Geschichte der Chalifen., Vol. II, 351.

Despite all the misfortunes which dogged the Empire under Mutawakkil, and despite the universal discontent with the Caliph, who recklessly squandered public money on luxurious buildings, and, like the Omayyads, had recourse to the confiscation of the property of rich officers, to replenish the depleted treasury—he would have continued longer on the throne were it not for the disaffection of his son and the chief of his body-guard. Early in his reign Mutawakkil divided the provinces among his sons, giving the western to Muntasir the elder, and the eastern to Mutaz. But gradually the latter became his favourite, and was placed in charge of the mint and treasury, and his name was stamped upon the coinage indicating him thus as successor to the throne.[1]

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[1] See, for further information on this tribe, Houtsma's Encyc. of Islam, p. 687, under the title 'Bedja.' Also W. Munzinger, Sitten and Recht der Bogos, Winterthur, 1859. On the Tahirides and the Saffarides, see, Stanley Lane-Poole's Moh. Dyn., pp. 128-9.

While Mutawakkil was plotting the overthrow of Bogha and Wasif, the latter arranged with Muntasir the murder of the Caliph, which could be carried out all the more easily as Chamberlain Bogha, the younger, was in the confidence of the conspirators. He let in the murderers (among whom were the five sons of Wasif) to the Caliph's room at a late hour in the night. The few that were with the Caliph were easily overpowered, and the Caliph fell under the dagger of the assassin (9-10 Dec., 861) and with him fell also his favourite Al-Fath Ibn Khaqan, a native of Khorasan, and an ally of the Banu Azd whom the Caliph appointed as the successor of Wasif and who belonged to the party of Al-mutaz.

The following morning Wasif proclaimed Muntasir as Caliph. His brother (who was told that the Caliph had suddenly died) and the Wazir Ubaidullah, the ally of Mutaz, instantly did homage and submitted. In the town it was noised abroad that Al-Fath murdered the Caliph, and was himself slain. But no one credited this report. The Persians and the Yamanides, to whom Al-Fath belonged, conspired together and sought to take the palace by storm, but Muntasir put them to flight with the help of the Turks and the westerners. But, not for long did Muntasir enjoy the fruit of his crime. He died six months after, of natural death according to some; of the effect of poison according to others. (4-5 June, 862).

The Turks and the westerners, at the head of whom stood Bogha and Altamish—Wasif being away in Asia Minor—would not let Mutaz succeed even after the death of Muntasir.

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[1] Muir, p. 522; Weil, p. 181; Suyuti, p. 365.

They summoned Al-Mustain, another grandson of Mutasim, to the throne, and drove the populace away who had declared for Mutaz. When the homage was over at Samirra, the Prefect of Baghdad compelled the inhabitants of the capital to accept and acknowledge Mustain as Caliph, and for this he was rewarded with the governorship of Iraq and Arabia. He was a son of Abdullah Ibn Tahir, and an uncle of Mohamed Ibn Tahir, the fourth Governor of Khurasan, of the family of the Tahirides, who, about this time, had extended their rule even over Khurasan, Herat, Tabaristan and a portion of Transoxiana. Like the Tahirides in the East; Altamish, Bogha, the younger, and Wasif ruled the west. When the Arabs, on the occasion of the defeat inflicted upon the frontier troops by the Byzantines, made one more desperate attempt to do away with the foreign soldiery, they were baptized with fire and sword.

As of yore there was a split among the victors themselves. Bogha and Wasif became envious of the *Wazir* Altamish. They stirred up the troops against him, and the weak Caliph was forced to sacrifice him. This was soon followed by a quarrel between Baghir, one of the influential Turkish generals, and Bogha. Bogha induced the Caliph to arrest and execute him. This event, so thoroughly inflamed the Turks, that they rose against the Caliph, who, in February, 865, withdrew with Bogha and Wasif to Baghdad. The leaders of the rebels followed him, to prevail upon him to return to Samirra, but as the Caliph insisted on remaining at Baghdad; and as one of their chiefs was insulted by the Governor of Baghdad, they released Mutaz from his captivity and proclaimed him Caliph (March, 865). At the head of 50,000 men he proceeded to Baghdad, and the war between the two Caliphs continued for a year with varying success. A victory of the supporters of Mustain at last led to their own ruin. The Turks, lying in Baghdad, under Wasif and Bogha, did not care for the Arabs, and went over to their kinsmen in the hostile camp. Soon the party of Mutaz became so powerful that the Governor of Baghdad counselled capitulation. It was arranged that Mustain should resign (4th January, 866) and end his days in Mekka with a pension of 30,000 dinars; that Bogha should accept the Governorship of Arabia, and Wasif that of Persian Iraq. It need scarcely be mentioned that during the civil war insurrections of all kinds broke out in the provinces. Even the Alides once again rose both in Kufa and Tabaristan, and laid the foundation of their rule in Tabaristan, which continued to the following century. Perilous was the position of Mutaz on his accession to the throne. He could repose faith in none of the influential parties. The Turks had murdered his father, had supplanted him, and had placed his brother Muntasir on the throne; and later, not out of any love or regard for him, but out of sheer hatred for Bogha and Wasif, they had set him on the throne in the place of Mustain. The Tahirides had fought a whole year with him, and the Arabs who were once favourably disposed towards him had been drawn into the fight. Mutaz, who excelled all his forerunners on the throne in perfidy and violence; who never scrupled to break faith with his relatives or friends; hoped to prolong his existence by setting the various magnates one against the other. He inaugurated the series of his faithless deeds by violating the compact come to with Mustain. He was not allowed to go to Arabia, but was imprisoned at Wasit, and later killed. When his head was brought to Mutaz, he was engaged in a game of chess. Mutaz would not interrupt the game, but when it ended he satisfied himself that the head brought to him was really the head of Mustain, and presented 50,000 dirhams to the murderer. Bogha and Wasif—notwithstanding the arrangement—would have been treacherously murdered but for a timely warning which put them on their guard. No more successful in his designs was the Caliph with Mohamed Ibn Abdullah, the Prefect of Baghdad. For fear that he might be hurled down from the throne and his brother Muayyad installed in his place,[1] he had him secretly murdered. His other brother Ahmad—less dangerous—was merely imprisoned. He tried to set up strife between Bogha and Babkial—the leaders of the Turks then; Wasif having perished in an insurrection. He took the side of Babkial because he feared him less than Bogha. As for Bogha he submitted, after several battles, and was decapitated. Precisely the same policy was followed in Baghdad and in Persia. Indifferent to the prosperity and welfare of his subjects the one aim of Mutaz was to create and foster discord, and to help the weaker against the stronger.

After the death of Mohamed (Dec. 867), his brother Ubaidullah and his son Tahir fought for power. Tahir had the popular support, and this was enough to set the Caliph against him. As soon as Tahir was shelved, the Caliph appointed Sulaiman, another brother of the deceased, Governor of Baghdad. But Sulaiman was hopeless in his ways, and hostile in his policy towards the people. Baghdad, under his rule, became a scene of constant rebellion, and a theatre of fierce civil war.

In Persia the Saffaride Yaqub Ibn Laith, the ruler of Sijistan, was a thorn in the Caliph's flesh. And this all the more so as he had even wrenched some towns in Khurasan from the Tahirides. Instead of helping the Tahirides, the Caliph incited Ali Ibn Husain (equally hateful to him), Governor of Faristan, against Yakub, by conferring on them both the governorship of Kirman, in the hope of weakening them by the fighting that would ensue. Yaqub won an easy victory, took Ali prisoner, and advanced as far as Shiraz. He contented himself with the possession of Kirman, and let the Caliph appoint a governor in Faristan in place of Ali. But East Persia was as good as lost to the Caliphate, and in Egypt the

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[1] Suyuti, p. 375.

Tulinides soon did away even with the semblance of dependance on the Caliph.[1]

In spite of his contemptible politics and despicable character, and notwithstanding the numerous misfortunes which he brought upon the Empire—soaked, as it was, in rebellion from end to end—Mutaz was tolerated as long as he could satisfy the greed of his mercenary troops. But this became more and more difficult at a time when several large provinces were in the hands of independent princes, and others, such as parts of Syria, Mesopotamia and Persia, were in the possession of rebels; others again were held by self-seeking chiefs who only thought of enriching themselves and their friends at the cost and to the entire sacrifice of the state treasury. When Mutaz failed to pay the arrears of his foreign soldiery, they conspired together and advanced against the castle. The rebels would have been quite satisfied with part-payment of 50,000 dinars which the Caliph had promised them, thinking to have got the amount from his mother, who owned a great deal of buried treasures. But when he found himself deceived in his expectations he was compelled to resign (13th July, 869), and was thrown into a subterranean cellar where, at the age of 24, he pined away in the course of three days.

The rebels, at whose head stood Salih, chose Muhtadi, the son of Wathiq, as Caliph. He had hitherto led a secluded life, and they hoped to lead him as they willed. But they had miscalculated. Muhtadi was shrewd, strong, energetic. And yet before the year was over, failing in his expectations of Arab support, he abandoned all effort of rescuing himself or the Arabs from the thraldom of the foreign soldiery. Some regarded the efforts of the Caliph with indifference; others flocked round the Alides, who again in various provinces—in Tabaristan, in Egypt, in Kufa and in Basra, renewed and reasserted their claim. Situated thus, the Caliph on his accession could neither prevent Salih from robbing the mother of Mutaz of all her treasures, nor even save his *Wazirs* and officers from being exploited, tortured, and oppressed for money. But, through Musa Ibn Bogha, Salih received his just and deserving punishment. As soon as Bogha obtained information of the happenings at Samirra, he returned with his troops from Persia, where he intended to fight the Alides and the rebels, and called upon Salih to render accounts to him. Salih concealed himself, but the people believed that the Caliph was aware of his movements and was seeking a favourable opportunity for placing him once again at the head of affairs. Fixed in this belief, the Turks conspired together in the palace of Musa, and resolved to dethrone Muhtadi. Babkial, one of their influential chiefs, succeeded, however, in dissuading them from this course. The Caliph himself, wrapped in a shroud, stepped forward in the midst of the rebels, and assured them that he knew nothing regarding the whereabouts of Salih, and added that he was prepared to die, but not without trying his valour or testing his sword. This heroic attitude of the Caliph awed the rebels into submission: but only a few days after a fresh insurrection broke out. In the meantime a deputation from the several suburbs of Baghdad waited upon the Caliph and offered to help and protect him if he would organise them as soldiers and pay them similar wages as the Turks. They asked in return for this offer of help that the Caliph should call upon both Musa and Salih to give account of their possession, and then deal with them as he liked: punish them, pardon them, restore them to their respective positions. The Caliph accepted the offer : but when, in spite of the acceptance, Salih was not forthcoming, his friends thought that the Caliph had put him into prison, and, under that impression, marched against Samirra, and stood before the palace in fierce wrath and ungovernable fury. Muhtadi obtained the help of Musa in beating off the rebels, and then unreservedly placed himself in the hands of Musa, who later discovered and decapitated Salih.

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[1] Ahmad Ibn Tulun, the first prince of this family, was appointed Governor of Egypt under Al-Mutaz. On the Tulinides, see Lane-Poole's, Moh. Dyn., p. 68.

But as soon as Musa left the capital to fight Musawir in the neighbourhood of Mosul, Muhtadi entered into fresh negotiations with Baghdad, where lived many Turkish partisans of Salih. At the instance of these Turks he first caused Musa's brother, who was at Samirra, to be beheaded. Then he issued orders to Babkial to get Musa out of the way, and to assume chief command over the troops. Babkial refrained from carrying out this order of the Caliph. Perhaps he saw through the game, namely, that the Caliph was trying to get rid of one Turk through another, and that his turn would not be long in coming. He, therefore, informed Musa of the orders that he had received, and, at his instance, proceeded to Baghdad, ostensibly to point out to the Caliph the difficulties in carrying out the orders, but really to dethrone him, if possible. Muhtadi was not-so easily taken in. Babkial, on his arrival at Samirra, was arrested, and when his friends assembled before the palace and demanded his release, the Caliph had him beheaded and his head thrown to the rebels. Surrounded by a number of Arabs, Persians and 1,000 Turks, belonging to the party of Salih who had joined him, the Caliph even ventured to come out of the palace. But with these 1,000 Turks the spirit of tribal kinship prevailed over party strife, and in a body they went over to their mutinous kinsmen, and put the rest of the troops of the Caliph to an ignominious flight. Muhtadi was seized and asked to resign; and, on his refusal to do so, was murdered. (12th June, 870.)

Al-Mutamid, a son of Mutawakkil, was now raised to the throne. He was destitute of talent and wholly given to pleasure.

And yet under his reign the Caliphate once again rose to a position of respect and honour. This was due to the fact that the real ruler was not Al-Mutamid but his gifted and courageous brother Al-Muwaffaq. Al-Muwaffaq was the man of the moment, a man of destiny. He wrenched power from the Turks and shed lustre on the Caliphate.

Omens were fair and propitious, and circumstances favoured his success in this direction. First, the Turks were at strife with each other: and, secondly, the residence of the Caliph was transferred once more to Baghdad, where they were held in horror and detestation. But if the capital was free from revolt and mutiny, the provinces—almost all—were theatres of discontent and disaffection. Everywhere was trouble. Here the Alide pretenders, there the democratic Kharijites, the uncontrollable Governors and adventurous usurpers. Black clouds hung all along the horizon! The Tahirides threatened the Empire on the west; the Saffarides in the east; in the south and the north-east simmered the Alide revolt; in the north flourished the Kharijite teaching, hostile and subversive of the Caliphate. Only one like Al-Muwaffaq—uniting in his person the highest gifts of a ruler with the dash and daring of a soldier—could bid defiance and laugh the enemies around him to scorn, and, eventually, transmit to his successor the throne, more secure and more honoured than before.

S. KHUDA BUKHSH

(To be continued)

GITANJALI

While so many pens have vied with each other in bringing into relief the various subtle facets of Tagore's personality and the equally elusive nuances of his poetry, few admiring readers of his have, we are afraid, attempted to determine the value of that fascicle of songs in any comparative spirit as a poetic expression of Indian mysticism or Indian mysticism —shall we say?—humanised in the alembic of Bengali consciousness. When *Gitanjali* or a part of it was translated into English and was presented to the world beyond Suez in European dress, all Europe sprang upon it as it had done upon the works of Byron, for instance, in the last century. Reviews, literary notices and year-books sought to press into a brief compass what was thought to be the very quintessence of it, and contemporary literary talk seemed all lacking in piquancy and verve if it had no reference, however amateurish, to it. The *Times* reviewer, if we refresh our memory, heard in it the lilt of the Davidian Psalms, while another was all admiration for what he would describe as the languorous music of oriental imaginings.

To appreciate *Gitanjali* as a record of some of the poet's supremest moments of faith, as a summary in terms of art of a new and original *Weltanschauung*, one must bring to bear upon it an attitude and a temperament specially trained, an almost Crocean[1] temperament and attitude that delights to watch as philosophy melts into art and art crystallizes into philosophy. Tennyson fought with all the "might" that was in him against doubt and despair before he could realize "the far-off divine event," while Descartes cogitated before he could excogitate the principle upon which he might poise himself. Pascal reasoned and argued—and argued and reasoned—until he woke up to the "impuissance de la raison."[1] Rabindranath's *Gitanjali* is a song—the Song of songs—or a cycle of songs of faith, faith in the life that we live and in the Eternal Fact that presides over that life. In the first song of this wondrous cycle is imprisoned for ever one of the flying moments of disillusionment of the poet when the soul stands naked before its God, secure in faith and in humility, which is the condition of faith. In the second and in the fifth song, the poet wonders how the great fact, so intimately known, could escape one's eyes. There is not that tussle and wriggling of the half sceptical, half assured attitude of the Victorian poet. The poet knows his God and sings Hosanna to the Highest. He does not start as Guyau started :—

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[1] Cf. *Ariosto, Shakespeare e Corneille* by Benedetto Croce (Bari, 1920) and "Literary Criticism as Philosophy" by B. Croce, trans. by D. A. in *Contemporary Review*, October, 1920.

> " Lorsque j'étais enfant, je rêvais de voyages,
> De radieux départs au plus lointain des mers,
> Et sous mon œil songeur passaient de doux rivages
> Flottant sur l'océan dans la brume des airs."
>
> (*Vers d'un Philosophe*).

No *voyage de recherche* ; no quest of the absolute. Rabindranath begins where the French poet-philosopher ends. The assurance of the fact floods his whole being. He breathes the fragrance of the soul in the fragrance of the flower, perceives its rhythm in the music of the winds (songs 7, 9), sees its lustre in the beams of light; and, again, he hears the voice that is on the waters (39, 41, 45). From the assurance to the evidence that compels it is the curve of the poet's thought; and over the curve broods the spirit of the Upanishads—Reality bursting into a thousand fragments and filling the whole world, all heaven above and all earth below.

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[1] *Pascal*, par Ad. Hatzfeld, p. 103.

> तेजो यत्ते रूपं कल्याणतमं तत्ते पश्यामि योऽसावसौ पुरुषः सोऽहमस्मि ॥
> (ईशावास्योपनिषद्)

The Master-Spirit comes to the poet in many shapes—and in many "sizes." He assumes all the rôles "fashionable" in mediæval art and yet a thousand more. He comes first—not historically nor psychologically but expedientially for the critic—as the Light-bearer, as

> "...a little gem concealed
> Me my burning rays revealed"[1]

(45, 39,...); then as the Musician playing on the harp of life (16, 146); then as the Ferryman taking the soul beyond the waters (62, 76); then as the Poet of poets initiating the soul into the mysteries of his art (113, 146), then as the Lover full of "lust" for all that is of man and of the world (90, 143, 144, 145). And then as what? As the flower, the stream, the wondrous hues of nature, the round of seasons—as Death and again as Life—as the Beautiful and as the True. Behind the ten tomes of Rabindranath's verse, of cycles and epicycles of songs there peeps, as we write, many a poet of the middle ages, of various climes and of various race-temperaments.—Vidyapati, Chandidas and Govindadas; Richard Rolle and Godric; Chrétien de Troyes, Marie de France and Jaufré Rudel; Walther von der Vogelweide and Wolfram von Eschenbach. Vidyapati sang of beauty and of "hungry eyes drinking beauty," and so sang also Chandidas and Govindadas—and in a chorus the whole host of self-effacing impersonal Vaishnava poets that forgot themselves in the enjoyment. Richard Rolle wrote the *Pricke of Conscience* and Godric sang the praises of the Virgin:

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[1] *The Koran*—quoted by Emerson.

"Maidenes clenhad[a] moderes[b] flur[c]."

The story of the Grail appealed to Chrétien de Troyes amongst a hundred poets and poetasters of the Middle Ages and Chrétien sang :—

A tot le graal qu'ele tint,
une si granz clartez i vint,
qui ausi perdirent les chandoiles
lor clarté, come les estoiles,
quant li solauz[d] luist et la lune"[1] ;

and Jaufré Rudel brooded—mediævally :—

Lanquan li jorn[e] son lonc en may
M'es belhs dous chans d'auzelhs[f] de lonh[g] [2]

In Wolfram's Heaven the nightingale never sleeps—the Phœnix of European poetry, dying and reviving out of its very ashes :

Dô slief niht diu nahtegal ;
nu wache abr ich und singe ûf berge und in dem tal.[3]

[There the nightingale never sleeps and I wake and sing on the hill and in the dale,]

and Walther solves one of the "eternal problems of life" for all the Middle Ages, if not for all time :

Saget mir ieman, waz ist minne ?
weiz ich des ein teil, sô wist ichs gerne mê.[4]

[What is love ? Some one asks. I know only a part of it and I am happy.]

Thus sang—they dreamed as they sang—Wolfram and Walther,

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[1] Bartsch, p. 129.
[2] *Les chansons de J. Rudel*, éd. par A. Jeanroy. [3] Bartsch, p. 135.
[4] *Walther von der Vogelweide*, herausgegeben von Karl Lachmann.
[a] Purity. [b] Mother. [c] Flower. [d] Soleil. [e] Jours. [f] D'Oiseaux. [g] Lointain.

Chrétien and J. Rudel, Vidyapati and Śaśi Śekhar and Jadunandan Das and the whole "crowd" following in the footsteps of their master. But when one parts their company and touches the singing robes of Tagore, he steps, as he feels, into a new world. The same—the same—the same—and yet not the same. Of Love—of the "elective affinities" of life—of fact and of the infinite suggestion of fact sings he also—but that a whole octave higher! Of Beauty and of the varied and wondrous manifestations of Beauty sings he too, but that in a key far beyond their reach! There is in the poet of Gitanjali a "lust" for life—for Reality itself, which you miss in the mediæval bard—that *Sehnsucht nach Urnatur* which Novalis felt in every limb that he bore. Old phrases he conjures into life and packs with all the suggestion they can bear (song 14); into ancient forms, into the form of a Vedic hymn for example (song 42) he presses all the infinite wealth of Reality of the last six thousand years. And when the poet is oppressed by the sense of "smallness" of his soul, he cries à la Thomson (59) and begs of the "Oversoul" to contract into human proportions (108).

> "Make thyself small, O Lord, in thine infinite grace and come home to us," etc., etc.

Yes, Tagore's "lust" for life is like Novalis' lust for *Alles.* Yet let none carry under his arm *Gitanjali* and *Hymnen an die Nacht*[1] together. *Gitanjali* is not '*Hymnen,* nor *Hymnen, Gitanjali.* Tagore strums on the harp and sings; Novalis pants,—the intoxication of Life—of God—is upon him. Faust's words one might put into his mouth:

Nenn es dann, wie du willst
Nenn's Glück! Herz! Liebe! Gott!
Ich habe keinen Namen
Dafür! Gefühl ist alles!

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[1] *Novalis, Werke* (Erster Teil), herausgegeben von H. Friedemann.

Or when he struggles for expression and his lips part, he stutters out:

> Unendliches Leben
> Wogt mächtig in mir
> Ich schaue von oben
> Herunter nach dir.[1]

Novalis gives us words, phrases—*Fragmente* torn from possible wholes. Scintillations they all are of his mystical genius. Tagore gives us songs, full and rotund: they are not "end-stopped"; they have always a beyond. Expression in Novalis is always in labour, and there is more than one expressional abortion. The words in Tagore flower into songs and the songs form themselves into garlands. In

> Ich fühle des Todes
> Verjüngende Flut[2]
> [I feel the rejuvenating wave of Death].

or again in:

> Die Götter verschwanden mit ihrem Gefolge
> Einsam and leblos stand die Natur.[3]

[The gods disappeared with their followers and nature stood alone and lifeless.]

what a struggle is there for expression—for the Word that will tell, the unit of all romantic style! But the most real point of difference between *Hymnen* and *Gitanjali* one always misses when he forgets one most essential artistic or—shall we say?—temperamental fact about their authors. "Light—more light," cries Tagore as Goethe cried. "How dost thou, O Lord," sings he, "light the Lamp of Life as thou comest into this world." (45) "Chase away all the darkness of the world, O Lord, that I may look beyond and wake to thine infinite glory " is the prayer of Tagore. " Let darkness brood over all the world, O Master-Spirit, that I may look within and dream out the whole dream " is Novalis' prayer to Night.

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[1] *Ibid* (p. 21).
[2] *Ibid* (p. 21).
[3] *Ibid* (p. 22).

> " Die Nacht ward der Offenbarungen mächtiger Schoss,
> In ihm kehrten die Götter zurück.[1]
>
> [Out of Night came all and all the Gods turned back to Night.]

he blurts out at one place and, again, at another, he stutters out—for Novalis never says or sings but always blurts or stutters—

> ...liebliche Sonne der Nacht—nun wach' ich—denn ich bin Dein und Mein.[2]
>
> [O thou sweet Sun of Night—I wake now—I am Thine as well as Mine.]

There—exactly—you see how the mystic of the eighteenth century and the mystic of the twentieth meet and part company.

Art, as Croce has taught us of late years, is expression itself and not expression of an Idea.[3] No " Idea " with capital I presides over *Gitanjali*. Or some of the most prodigious Ideas of the last few centuries are there, as it seems, in the melting pot—dissolving flake by flake in the poet's most vital art-experience, most intimate *Kunst-instinkt.* In the beginning, says the Italian philosopher-critic, there was neither the Word nor the Act, but " the Word of the Act and the Act of the Word."[4] In *Gitanjali*, the poet has discovered the " Word " that is " of the Act "; and *Gitanjali* will live in literature as one of the masterpieces of expressional self-realization.

G. C. KAR

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[1] *Ibid* (p. 23).

[2] *Ibid* (p. 18).

[3] " Benedetto Croce as literary Critic " by G. L. Bickersteth (*Quarterly Review*, April, 1921).

[4] *Philosophy of the Practical*, by B. Croce, English Translation. (Macmillan & Co.)

THE POST IN MEDIÆVAL INDIA

The Post Office, as we understand the term at the present day, is of comparatively recent growth. In its beginnings, it was a mere state institution, and owed its origin to the necessity of maintaining communication between the different parts of a kingdom, and keep them in close touch with one another for administrative purposes. Prior to the year 1837, India possessed no general postal system; and the work of maintaining communication between the different parts was in the hands of special messengers, private or official. Regarding early posts in India, writes the *Imperial Gazetteer:* "The conveyance of letters by such couriers (kasid, patamar, or harkarā) was extensively developed under native rūle from early times. And it is interesting to notice that the vernacular words (dāk in Northern India, and tappāl in the south and west) are derived like the English word, from the stages at which relays of couriers, or other methods of conveyance, were stationed."[1]

The earliest recorded instance of the post in mediæval India seems to be the one organised by the Pathan ruler Alauddin Khilji, who came to the throne in 1296. According to the historian Ziauddin Barni, the emperor established horse and foot posts, whenever he sent an army on an expedition, to furnish him with military news.[2] That the post was a well organised institution in India by the middle of the fourteenth century is sufficiently clear from the famous description of the system by the celebrated African travêller Ibn Batuta, who visited the land in 1341 A.D. during the reign of Muhammad Tughlak. The system is thus described:

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[1] *Imperial Gazetteer*, Vol. III, p. 418.

[2] *Tarikh-i Firoz Shahi*, Elliot, Vol. III, p. 203.

"There are in Hindustan two kinds of couriers, horse and foot: these they generally term 'El Wolak' (*i.e.*, Quick, hasting). The horse-courier, which is part of the Sultan's cavalry, is stationed at the distance of every four miles. As to the foot-couriers, there will be one at the distance of every mile occupying three (consecutive) stations, which they term 'El Davah,' and making (in the whole) three miles.........In the hand of each is a whip about two cubits long, and upon the head of this are small bells.........he takes his despatches in the one hand, and the whip, which he constantly shakes, in the other. In this manner he proceeds to the nearest foot-courier; and, as he approaches, he shakes his whip. Upon this out comes another, who takes the despatches, and so proceeds to the next. For this reason it is that the Sultan receives his despatches in so short a time."[1] A similar description of the post during the period is given by the historian Shahabuddin Abul Abbas Ahmad, a contemporary of the African traveller.[2] The names of Secunder Lodi (1488-1518) and Babar (1526-30) are also mentioned by Muhammadan historians in connection with the post. "In order that every day news might be conveyed to him from the Nilab and Agra, and the very extremities of the countries of Bengal," Secunder is said to have "established small posts at every place";[3] and Emperor Babar is said to have ordered the measurement of the Agra-Kabul road, and the establishment of horse-posts all along the way. It is stated in the *Memoirs of Babar* that on the 17th of December, 1528, Chiqmaq Beg was ordered to measure the road between Agra and Kabul, and that he got out the same day to carry out the imperial instructions. The plan of work is thus described: "At every 9th Kuroh (cir. 18 m.), a tower was to be erected 12 qaris (24 or 36 ft.) high and having a chār-dara (four-doored, open on all sides) on the top; at every 18th Kuroh (cir. 36 m.), 6 post-horses were to be kept fastened; and arrangement was to be made for the payment of post-masters and grooms, and for horse-corn."[1] It is not however clear from the *Memoirs* if the good intentions of the Emperor were actually realised.

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[1] *Travels of Ibn Batuta*, Lee's translation, pp. 101-102.

[2] See Elliot, Vol. III, p. 581.

[3] Elliot, Vol. IV, p. 418 footnote; Vol. V, p. 102.

The reign of Emperor Sher Shah (1540-45) might well be considered a landmark in the history of Muhammadan rule in India. It was during his reign that various improvements were made in the diverse affairs of political and economic life and new principles of administration and justice laid down. As we have seen elsewhere,[2] Sher Shah not only constructed roads and *sarais*, but established horse-posts throughout the empire. Altogether he is said to have built 1,700 *sarais* on the various roads. "In every sarai two horses were kept, that they might quickly carry news," so that there was an establishment of 3,400 horses in Hindusthan for the work of the Post.[3] Emperor Akbar (1556-1605) was probably the first to employ the camel post in India. The following extract from the *Ain-i-Akbari* will make it abundantly clear that the post was a well established institution in India during the sixteenth century. Says the *Ain*: "*Raibāri* is the name given to a class of Hindus who are acquainted with the habits of the camel. They teach the country-bred *lok* camel so to step as to pass over great distances in a short time. Although from the capital to the frontiers of the empire, into every direction, relay horses are stationed, and swift runners have been posted at the distance of every four *kos*, a few of these camel riders are kept at the palace in readiness."[4]

Of the European travellers who visited India during the seventeenth century, Alexander Hamilton is one who has the most graphic description of the Mogul Post which he thus describes: "The post in the Mogul's dominions goes very swift, for at every caravan-serai, which are built on the high-roads, about ten miles distant from one another, men, very swift of foot, are kept ready. The letters are enclosed in a gilded box, which he that carries holds over his head when he comes near the serai, and giving notice of his arrival, another takes it, and runs to the next, and so on, night and day, at five or six miles in an hour, till it is carried where directed to, so that in eight days, advices are brought from the farthest parts of that large empire, to court."[1]

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[1] *Memoirs of Babar*, Section III, p. 629.

[2] See the writer's article in the *Sir Asutosh Mookerjee Silver Jubilee Volume*, No. 1.

[3] *Tarikh-i Sher Shahi*, Elliot, Vol. IV, p. 418.

[4] *Ain* (Blochmann), I, 147-48.

Under the Moguls there were various news-reporters in the different parts of the empire known as (1) the *waqai-navis*, or the *waqai-nigar*, (2) the *sawanih-nigar*, (3) the *khufia-navis*, and (4) the *harkara*. These regularly furnished news to the central Government, and acted under the orders of an officer of the Court named the *Darogah of Dak Chauki*, *i.e.*, Superintendent of Posts and Intelligence, who received the letters and despatches and handed them unopened to the wazir for submission to the Emperor. From a Persian manuscript, 'written not later than the early 18th century,' we learn that *waqai* was to be sent once a week, *sawanih* twice, and the *ákhbár* of *harkaras* once [? a month] and the despatches in cylinders (*nals*) from the *názim* and the *diwan* twice every month, in addition to urgent matters (which were to be reported immediately).[2] The number of despatches sent from the provincial centres to the capital might have changed from time to time, but their frequency clearly indicates the necessity of the maintenance of a regular system of post throughout the empire; and that the system was well maintained at least to the middle of the 18th century seems to be clear from the *Mirat-i-Ahmadi* or the History of Gujrat written in 1748 by Muhammad Ali Khan, the diwan of the province. According to Ali Khan, the provincial news-writer had a large staff of news-writers called wákiâh-nigar who worked in the various district and city courts and offices. "He received his news-reports every evening and embodied them in a letter which was sent to court by camel post. A second staff of news-writers called sáwánih-nigar reported rumours. A third set were the harkarás on the viceroy's staff. Postal chaukis or stations extended from Ahmedabad to the Ajmir frontier, each with men and horse ready to carry the imperial post which reached Shah-Jehanabad or Delhi in seven days. A line of posts also ran South through Broach to the Dakhan."[1]

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[1] Pinkerton, *Voyages*, Vol. VIII, p. 316.

[2] Jadunath Sarkar, *Mughal Administration*, pp. 97-101.

In Mysore, we are told by Colonel Wilks, a regular post was established for the first time throughout his dominions by Raja Chick Deo, who ascended the throne in 1672. The Post Office in Mysore was not merely a passive instrument for conveying intelligence, but an active one for obtaining it. The post-masters and other inferior officers of the department, besides performing their ordinary duties, also acted as confidential agents of the government, and furnished it with regular reports of the secret transactions of the districts in which they were stationed. The system was more fully developed under Hyder Ali.[2]

The post in mediæval India was maintained for official purposes, and was not available for private communications. Private communications were carried on by special messengers, who were available in the important centres of trade. It is probable, however, that government couriers delivered private letters for a consideration. The private messengers were variously known as the *kasid*, the *patamar*, or the *harkara* in the different parts of the country. The *bazar kasids* in the time of Peter Mundy (1628-34) carried letters from Patna to Agra in 11 to 15 days.[3] 'Nimble' *kasids* could travel between

[1] *Bombay Gazetter*, Vol. I, Part I, p. 214.

[2] Wilks, *Historical Sketches of the South of India*, Vol. I, p. 89.

[3] *Travels of Peter Mundy*, Vol. II. p. 368.

Delhi and Surat in 15 to 20 days.[1] It ordinarily took 20 days for the *patamar* to travel between Goa and Masulipatam.[2] According to Dr. Fryer, the *patamars* were 'the only foot-posts' in the Deccan.[3]

The origin of the public post in India may be dated as far back as 1712, when for the first time private letters were allowed to be despatched by the Company's peons (*kasids* or *patamars*) on payment of postage. When the Europeans first came to India, they employed these messengers for the conveyance of their letters and despatches. As this took an inordinately long time, and was besides very expensive, in 1688, the English East India Company directed its officers at Madras and Bombay to establish Post Offices for the convenience of merchants, and for augmenting the Company's revenues. The instructions of the Company to Bombay ran as follow: "We likewise require you to erect a Post Office for all letters to be brought to and delivered at, setting such rates upon each single letter, and so proportionately upon double or treble letters, as may in a few years bring in insencibly a vast revenew to the Company, and a much greater conveniency to merchants and trade in generall then ever they yet had or understood. For which purpose you [must] order fitting stages and passage boats to go off and return on certain days, and proper stages by land to Surrat and other places to convey letters with great security and speed...."[4] Similar instructions were sent to Madras. It appears that in 1712 the Madras officer established post stations at convenient stages, and so 'succeeded in establishing a useful correspondence' between several places. Messages could now be sent from Madras to Bengal in about 30 days, whereas formerly the time taken was from two to three months. The rates of postage originally fixed are not given, but those for 1720 are :

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[1] Wilson, *Early Annals of the English in Bengal*, Vol. II, Part II, p. 90.

[2] Love, *Vestiges of Old Madras* (Indian Records Series), Vol I, p. 198.

[3] Fryer, *East India and Persia*, Vol. I, p. 279.

[4] *Vestiges of Old Madras*, I, 544.

From Fort St. George to	Vizagapatam	4	*Fanams.*
„ „	Bengal	6	„
„ „	Bombay or Surat	9	„[1]

Little further is known regarding the development of the Company's Post till we come to the period of Lord Clive, when for the first time in 1766 a regular postal system appears to have been introduced. The order on the subject is :—"*For the better regulation of the Dauks.*—Ordered that in future all letters be despatched from the Government House; the post-master or his assistant attending every night to sort and see them off ; that the letters to the different Inland settlements be made up in separate bags sealed with the Company's seal; that no one may open the packets except the Chiefs at different places who are to open only their respective packets; and ordered that they be directed to observe the same rule with respect to the letters sent down to Calcutta."[2] Various other regulations were laid down for the greater security and speedier despatch of letters and packets. Further improvements in the post-office were made under the administration of Warren Hastings. In 1774, a Postmaster-General was appointed at Calcutta, and the lowest rate of letter postage was made 2 annas per 100 miles, copper tickets of the value of two annas, to be used solely for postal purposes, being specially struck for public convenience. The postal regulations were revised by Warren Hastings in 1784, and further revisions were made from time to time, until 1837, when a public post was established, and Government assumed the exclusive right to convey letters for hire in the territories of the East India Company.[3]

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[1] *Vestiges of Old Madras* II, 136. A fanam = 1¼ annas.

[2] Hamilton, *An Outline of Postal History and Practice, etc.*, p. 131.

[3] Hamilton, pp. 132-33 : Clarke, *The Post Office of India and its Story*, pp. 13-17, 191-94.

Several years prior to 1775, a bi-weekly post was established between Madras and Bengal. There was yet no regular postal communication either between Madras and Bombay or between Bombay and Calcutta. On the representation of the European merchants a regular fortnightly post seems to have been first introduced between Madras and Bombay in 1788. The route lay by way of Hyderabad and Poona, and it took about 25 days to make the journey. In 1790, the service was made weekly, and the route was changed Letters were now conveyed from Bombay to Masulipatam, and thence to Calcutta and Madras. By this change, much time was saved, and letters could now be carried from Bombay to Calcutta in 26 days, to Madras in 17 days, and from Madras to Calcutta in 19 days.[1] The postmen always travelled on foot. Their stages were commonly from seven to eight miles; and their rate of travelling, about 70 miles in the 24 hours.[2]

The rates of postage varied according to weight and distance; and they appear to have been changed several times in the course of a few years. In 1788, the charges for letters between Madras and Bombay were:—

For a single letter	Rs.	2
,, double ,,	,,	4
,, treble ,,	,,	6

and the charge on packets was at the rate of Rs. 4 per ounce. After November 1789, the postage for a single letter 2½ rupees' weight and under was—

Between Bombay and Poona	52	*kos*	2	Annas
,, ,, Hyderabad	222	,,	8	,,
,, ,, Masulipatam	331	,,	12	,,

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[1] *Vestiges of Old Madras, III,* 79, 443-45; *Selections from the Letters, Despatches, and other State Papers preserved in the Bombay Secretariate,* Home Series, Vol. II (ed. Forrest), p. 347.

[2] Rennell, *Memoir of Hindoostan,* p. 237. From Calcutta to Patna, the distance was 398 miles, and there were 48 stages and 144 harkaras. From Calcutta to Dacca, the distance was 179 miles, and there were 21 stages and 63 harkaras.—*Clarke,* p. 193.

Between Masulipatam and Madras 323 Miles 3 fanams 4 Annas
„ „ Ganjam 428 „ 4 „ 8 „
„ Ganjam and Calcutta 305 „ 5 „

Letters between 2½ and 3½ rupees' weight were to pay double rates; between 3½ and 4½ rupees' weight, treble rates; between 4½ and 5½ rupees' weight, quadruple rates, and so on.[1] In 1795, the rates were:—

Calcutta to	2½ *Tolas* and under.	
	Rs.	As.
Barrackpore ...	0	1
Rajmahal ...	0	3
Patna ...	0	5
Benares ...	0	7
Dacca ...	0	3
Chittagong ...	0	6
Bombay ...	1	9
Madras ...	1	2½

Letters between 2½ and 3½ tolas were to pay double rates; between 3½ and 4½ tolas, treble rates, and so on.[2] The rates were further revised in 1798. Letters under one rupee in weight were styled single letters; between 1 and 1½ rupees, double letters; between 1½ and 2 rupees, treble letters; and so on. The postage prescribed for single letters was based on a mileage rate of 1½ fanams for every hundred miles.[3] It was not till 1854 that rates were fixed for the conveyance of letters irrespective of distance.

The system of franking public letters, says Carey in *The Good Old Days of Honorable John Company*,[4] came generally into use in July, 1798. Before this, only a few officers had the privilege of sending their letters on the public service free of postage.

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[1] *Selections from the Letters, etc.*, p. 347; *Vestiges of Old Madras*, III, 344. *Kos*, about 2½ miles.

[2] Carey, *The Good Old Days of Honorable John Company*, Vol. I, p. 483, *Tola*, rupee's weight, about 180 grains

[3] *Vestiges of Old Madras*, III, 541.

[4] Vol. I, p. 484.

Arrangements for the conveyance of heavy packages and parcels also existed in India before the close of the 18th century. These were carried in *banghies* or *banques* suspended across men's shoulders. The system was accordingly known as the *Banghy Dak.* Regarding the banghy dak, writes Hamilton in his *Outline of Postal History and Practice:*[1] "India had a parcel post a century at least before the introduction of that loudly heralded improvement at home. The banghies travelled somewhat slower than the mails; but a watch might be sent from Allahabad to Calcutta for repair and returned in less than a month."

BEJOYKUMAR SARKAR

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[1] P. 134.

[illegible] LIBRARY.
CALCUTTA UNIVERSITY

THE RESEARCHER RE-SEARCHED

Of late, no word has been more often used, or we should rather say, more often abused than the word "Research." Indeed, if there is one word, which more than any other, is in everybody's mouth to-day, from the veriest tyro to the most seasoned veteran in learned circles, it is the word in question, with a capital "R," to be sure, for has it not been made into a veritable maid-of-all-work, whose presence in our academic household is considered an indispensable necessity, if its dignity has at all to be maintained? Are we not, verily, in the thick of researchers and researches of every possible shade of hue in every conceivable department of human knowledge? The professional lecturer in any decent seat of learning must have a fair share of "original research," whatever that phrase might mean, to his credit, if he is to be regarded as being worth his salt, let alone any pretensions he may have to a niche in the Temple of Fame. Within the last few years, the learned world in India, and more particularly in Bengal, old and new, has been literally overwhelmed with the ever-swelling tide,—albeit somewhat abnormal in its proportions, and not infrequently devastating in its effects,—of "original research," which is undeniably the *furore* of the day.

Surely, research of the right sort is always certain of welcome wherever learning is appreciated; but we must make sure that we get the genuine article and not its spurious counterfeit. The Calcutta University has, in recent years, set a laudable example in this regard. The Mother of Universities in India cannot be said to have begun its activities in this direction a day too soon; and the output for which some of its most brilliant alumni are responsible, has already received its proper meed of merited recognition at home and abroad. Had the funds of the University been ampler, considerable headway might have been made by now. The rich results that have already been achieved must be set down to the account of the untiring energy of one man, we mean, Sir Asutosh Mookerjee, let his enemies say what they will.

A word of caution may not be altogether out of place in this connection. Our brilliant University men,—if they are to become researchers in the true sense of the word, that is to say, if they are to lead a dedicated life, a life exclusively devoted to a sedulous cultivation of knowledge for its own sake,—should carefully remember that it may be necessary for them to take the vow of poverty,—to place the things of the mind above what are ordinarily called "the good things of life." It need hardly be emphasised that with research on your lips and greed of money in your heart, you can never expect to become a worthy contributor to the world's ever-accumulating stock of useful knowledge. Another thing which is of equal, or perhaps, of greater importance is never to forget that you are a humble votary at the Fane of Knowledge, and that humility should be your watch-word, your life-motto, and the gospel to which your every-day life must strictly conform. Instances are not rare among our people in whose case "shallow drafts" of so-called research have intoxicated their brain beyond measure and have deplorably carried them off their feet. They are eager to proclaim their achievements from the house-top in order to catch the applause of the multitude. They are a little too conscious of their genius for research, evidently oblivious of the rare wisdom embodied in that incomparable line of one of the sanest of English poets, —"Who knows his virtue's name and place hath none." This is not their worst fault; for they are always seen to snarl at their brother-researchers and to spare no efforts to throw cold water upon their honest attempts at the discovery of new truths.

We deem it our duty, therefore, once more to caution our young enthusiasts against the positive danger of being led away by the deafening cries that are being constantly, and not unoften uncomfortably, dinned into their ears by *soi-disant* researchers, who cry up their own researches, as they cry down those of others, in season and out of season, greatly to the mortification of honest workers, and what is worse still, equally greatly to the prejudice of the cause of truth. The undoubted prototype of the singularly conceited class of people we are contemplating just now, is the redoubtable researcher, the veritable *research-i-arch,*—our readers will kindly pardon this most uncouth coinage,—we mean, Professor Jadunath Sircar, M.A., P.R.S., I.E.S., who is unfortunately filled, from the sole of his foot to the crown of his head, with the ineradicable idea that, of all men in latter-day India, he has the whole and sole monopoly of that priceless commodity he calls "real research;" and who perks it in our face unceremoniously, as often as he pleases, without the slightest "compunctious visitings." Somehow, this megalophonous asserter of his unquestioned sway in the unapproachable realm of "real research" and the megalomaniacal author of the incomparable volume,—at any rate, in his own estimation,—on Aurangzeb, has persuaded himself to believe that he is Sir Oracle in all that concerns honest investigation into our country's past history, and that when he opes his inspired lips to enlighten his ignorant countrymen as to what his approved methods of such genuine investigation are, no dog of a researcher but must crouch at his heels and follow his lead. We are, accordingly, under a deep debt of obligation to Mr. Khuda Bukhsh, one of the most unpretending and unassuming of men, though none the less, one of the sanest and soundest of scholars, for his kindly undertaking, in a truly old-world leech-like spirit, to phlebotomize the renowned *savant* and cure him of one of the most incurable of all human diseases, calculated to baffle the utmost skill of the most skilful professor of the healing art, yclept "swelled head," a malady against which even the resources of the gods themselves may prove utterly powerless.

Researchers we have ourselves never been, nor ever aspire to be; and so we shall be only too glad to leave the entire domain of "real research" to the great author of *Aurangzeb*; let him have it all to himself, and we can assure him we won't ever grudge him his proud privilege. If he is so minded, let him rule his "vast demesne" as he pleases, and take precious good care, like the Turk, not to bear a brother-researcher near his imperial research-throne, lest its dazzling lustre be dimmed in the least by the dark shadow of an impertinent intruder into the sacred preserves where that enviable throne is set up in all its glory, probably, for all time to come. But why should the learned professor and peerless researcher go out of his way to bespatter us,—poor creatures, for whom the *Modern Review* is much too high, and who can never even dream of being able some day to come within a measurable distance of the supernal altitude where he habitually treads with the utmost ease,—with what, at best, are the rinsings of an apparently unclean mind? Why should this stickler for propriety call us all manner of names, for no worse fault on our part than that we still swear by our beloved *Alma Mater*, and like him, cannot summon up courage enough to swear at her? A superman as he is, he can easily afford to drift away from her moorings and sail into the trackless sea of "real research;" but would it not be too much for him to expect that ordinary mortals, like ourselves, should forsake her, and not still cling close to her side and nestle comfortably in her loving bosom? But why need we complain? Would it not be just as well to recall the well-known Bengali adage, and soothe our ruffled spirits with the consoling thought imbedded therein—"What are deadly sins in the case of poor mortals are but mere sports in the case of the great gods?" Professor Sircar is a celestial being, and so we should not wince under his castigation, but uncomplainingly kiss his chastising rod.

Now, as to the affairs of the unfortunate Calcutta University and its equally unfortunate head, we have a word or two to say, even at the tremendous risk of calling down upon our devoted head more than an ordinary share of the mighty professor's Achillean wrath. The head and front of Sir Asutosh's offending, as Mr. Khuda Bukhsh has put it in his inimitable manner, is that he "has forgotten to find a place, an honoured place, for Professor Jadu Nath Sircar in his scheme of things." We have no reason to doubt the soundness of the diagnosis arrived at by Mr. Khuda Bukhsh as regards the Professor's malady to which we have already referred. The cat is out of the bag. Indeed, it is "wounded vanity or injured pride," or more correctly speaking, a combination of both, to which may be safely ascribed the great professor's violent prejudice against the Calcutta University and its revered head. Even the superman of a researcher,—whose nauseating vapourings in the hospitable columns of the much too facile *Modern Review* have caused a deal of merriment outside the charmed circle of its admiring readers,—cannot altogether disguise from himself the patent fact that in his rabid criticism of his quondam *Alma Mater* he has really overshot the mark and "expectorated his spleen," evidently accumulated for a pretty long while, without the slightest regard to the most ordinary rules of decency and decorum, not to speak of those which should govern the daily intercourse and mutual dealings of men having the least pretence to culture and refinement.

Sir Asutosh may be the *bête noire* of Professor Sircar, but every fair-minded man will readily admit that to his credit must be placed the infinite expansion of the Calcutta University in recent years. No man would pretend for a moment that he could have shown better results unless, like Professor Sircar, he had been obsessed with the idea of his supreme self-importance. Not that we intend to hold Sir Asutosh's brief, for he can effectually hold his own against any odds; not that we claim perfection in his behalf, for, after all, he is human; not that we propose to laud him to the skies in order to ingratiate ourselves with him to serve our selfish ends, for such laudation is bound to be nauseating to a degree to a man of his shrewd good sense and rare clarity of vision; not that we maintain, at all, that there is absolutely no room for improvement in the methods he has hitherto pursued, for he is more alive to their shortcomings than any amateur outsider or arm-chair critic could possibly be; in short, not that it is our object to hold up before the admiring gaze of the world the model of the Calcutta University as being, in every way, worthy of its imitation. All that we contend for, is that the Calcutta University has, in recent times, made considerable strides towards the realisation of the great goal after which the Universities of the West as well as of the East are striving, *viz.*, the converting of them into ideal agents for a healthy dissemination of *Universal Knowledge*, which is acknowledged, on all hands, to be the *summum bonum* of all associations of scholars in different parts of the civilized world. And a bold bad man must he be, who dares assert that the Calcutta University owes nothing of its varied improvements in its multifarious departments to the constructive genius and organizing powers of a single man who, through good report and ill, has steadily fought his way towards the accomplishment of the one absorbing pre-occupation of his life, the placing of his *Alma Mater* on an assured basis of future pre-eminence, so that it might take its proper place among the recognised seminaries of learning in various parts of the world. That one man, to be sure, is not without his imperfections, but there is no denying the fact, that he has brought to bear upon his herculean task indefatigable zeal, irrepressible energy, boundless enthusiasm, and, above all, has steadily pursued a clear-purposed goal from which he cannot be made to swerve even by so much as a hair's breadth, and to which he is as unerringly true as the needle of the compass to the self-same direction in which it invariably points.

We fear, we have already taken up more than our allotted share of the space that could be conveniently spared in the columns of the *Calcutta Review.* And so it is time we should conclude our remarks with just a word or two about the eminent researcher's "elegant English," to which Mr. Khuda Bukhsh incidentally referred in the May number of the *Review,* and which the proverbially stolid *Saturday Review* found such a hard nut to crack some years back. We venture to think, that the *Saturday* affair is still fresh in the recollection, if not of our readers, at least, of Professor Sircar. *Apropos* of the renowned *savant's* "elegant English" one may as well be tempted to ask oneself whether he would not have better consulted his reputation had he abstained from the perilous practice of picking holes in other people's English which, unfortunately for him, he is often tempted to do in the pages of the *Modern Review.* The English of our friend, Mr. Panchanan Mitra, has more than once been glanced at, and no effort has been spared to prove to the world that, so far as ordinary English spelling is concerned, our friend is hopelessly at fault; and it is just possible he may be advised, one of these days, to go back to school in order to learn the proper spelling of the commonest English vocables, *e.g., caught, new-fangled,* and, goodness only knows, how many more. The readers of the *Modern Review* are solemnly assured that Mr. Mitra has yet to learn that the words in question are not "c*o*ught" and "new-f*o*ngled," but "c*a*ught" and "new-fangled." *O tempora*! *O mores*! What is the world come to! Could there be a worse insult offered to the intelligence of the readers of the *Modern Review* than that they should be asked, in all seriousness, to swallow what even children hardly emerged from the nursery would assuredly strain at? Could any man, unless he has taken complete leave of his common sense, persuade himself to believe for a moment that one of the brightest gems of our University, we mean Mr. Mitra, is not conversant with the spelling of two of the simplest of English words, for mis-spelling which a fifth-form boy in an obscure village school would be given a good thrashing by his teacher? Poor Mr. Sircar, is this the way to establish your superior knowledge of "elegant English," on which, apparently, you plume yourself so much, despite your talking of a "*mast* elephant" in your "Shivaji and his Times!" (page 380)? Could you not devise something more convincing to make good your claim to an exclusive title to the *King's English?* The pity of it, Mr. Sircar, O the pity of it! Sweet's the wine, but sour's the payment. It was all very good, Mr. Sircar, to try to raise a laugh against Mr. Mitra, only if you cared to remember that the tables might be turned on you, one of these days.

We wish very much either Mr. Mitra or Mr. Khuda Bukhsh had been at the pains to string together a few choice specimens of the scholarly professor's "elegant English," scattered broadcast over the pages of the *Modern Review*, no less than over those of his *Aurangzeb* and *Shivaji*. Had either of the two gentlemen done so, we would have been spared the trouble of hunting for such choice specimens for the delectation of our readers. We need not say, it is always an unpleasant business to find fault with a man's composition; and it becomes ten-fold more unpleasant when one finds oneself called upon to deal with the composition of a veteran in the writing line, as Professor Sircar unquestionably is; and more especially, when that veteran is inflated with the idea that his composition is above all reproach. Pleasant or unpleasant, the business has to be done; and, unfortunately for us, it has fallen to our share to do it. Professor Sircar, we are constrained to say, has clearly forgotten the wholesome saying he must have picked up in his school days, to wit, "Those who live in glass-houses should not throw stones at others." The great professor, however, has been quite unwittingly led into a sad predicament in his attempt to crush Mr. Mitra on the score of his bad English; and it is all the more deplorable in his case, in as much as he is more than convinced, it would appear, that he has the undeniable right to set himself up as a privileged mender of other people's shaky English. Professor Sircar's own English we are afraid, is, a bit too shaky at times, and needs a deal of mending before being accepted by the world, as will be abundantly clear from a few concrete instances culled at random from his learned contributions to the *Modern Review*. We need not go further back than this year's April number of the *Review* in which he pitches heroically into all and sundry connected with his pet object of aversion, the Calcutta University, and lays about in a most desperate fashion, of course, greatly to his own glee and to the infinite merriment of his bosom crony, the hoary-headed presiding genius of the *Review*. On page 461, at the right-hand column, we come across this flawless gem of the most approved pattern, perchance, of the latest type of the *King's English* or what, at any rate, passes for such in the "studious cloister" of the worthy professor and in the editorial sanctum of his no less worthy *confrere* :—"The vested interests *who* are profiting by the state of affairs in that University." What, in the name of Webster's dictionary or Murray's either, are we to understand by "vested interests *who?*" We always knew that "vested interests" meant nothing more than "future interests not made to depend on an uncertain period or event;" we never knew that "vested interests" could be predicable of *persons* in the enjoyment of such interests. We can well understand a sentence like this, "The cotton interest of Lancashire has very good reasons to apprehend an impending financial crash," where "interest" is used as "a collective name for those carrying on or interested in any particular business;" but we must frankly admit that the following sentence, occurring at the left-hand column on the top of page 462, "the vested interest has 'made the

University peculiarly its own,'" is altogether beyond us. "The vested interest," in the latter sentence, is evidently meant for Sir Asutosh, with a side reference to a notable pronouncement of Lord Hardinge, into which has been read a meaning, to the detriment of Sir Asutosh which was certainly never meant to be conveyed. Be that as it may, "vested interests" being followed by *who*, and "vested interest" being followed by *its*, are absolutely on a par in point of "elegance,"—both being equally predicated of *persons* and not of *things*, as they should be,—so far, at least, as our poor knowledge of ordinary English goes. On page 462, at the left-hand column, occurs the following:—"Educationists of long standing......... can speak of it from a pure point of detachment." We entirely fail to make out the meaning of "a *pure point* of detachment," although "a point of *pure detachment*" is not ununderstandable.

We are, however, not in a position to break our critical lance with so august a champion of the *King's English*, as Professor Sircar undoubtedly is. It is enough for our purpose to remember the words of the poet and lay their wisdom to heart:—"It is malicious and unmanly to snarl at the little lapses of a pen, from which Virgil himself stands not exempted." We would most gladly have acted upon this charitable view, had not Professor Sircar tilted at all he met, and repeatedly tried to make the vigour of his literary brawn and muscle felt by everybody that, unfortunately, came in his way. It is high time he should give up his bad habit, or he may have to repent of his unprovoked attacks. It is for him to choose his own course; it is none of our concern, though. What really concerns us, at the present moment, is a cursory examination of his "elegant English." On page 462, at the right-hand column, we read:—"Secondary education in Bengal has reached the point of breaking down for want of funds." Would it not be just as well to change "the point of breaking down" into "the breaking-point?" We leave it to our readers to determine the point for themselves. At the right-hand column, on page 465, we meet with the following:—"The world's aristocracy of *the* intellect." We usually speak of "the aristocracy of intellect," "the aristocracy of birth;" *the* before either *birth* or *intellect* is hardly admissible, or, if we may venture to say so, is anything but elegant. We must, however, freely confess we are absolutely no match for the scholarly professor in deciding what is elegant and what is inelegant English. Our presumption, we fear, will only be rewarded with the remark, "Fools rush in where angels fear to tread." The phrase "the aristocracy of *the* intellect" occurs twice on p. 465, and so the regrettable lapse cannot fairly be charged to the poor printer's devil. Professor Sircar somewhere mercilessly ridicules Mr. Mitra for his habitual misuse of the definite article; but what are we to say of his own use of it? On page 467, at the left-hand column, a misuse of it stares us somewhat rudely in the face:—"The real point was to swell the number of 1st classes and that was done by *the* grace marks." "By *the* grace marks" is awkward in the extreme. "By *the* grace marks" should be either "by means of grace marks" or, better still, "by putting on grace marks;" *the* before "grace marks" would be intolerable in either case. Another piece of "elegant English" on the same page, at the right-hand column, is:—"You may lionise your profuse output of P. R. S.'s and Ph. D.'s." We may *encourage* the *output* of an article, but can we *lionise* its *output?* On page 468, at the left-hand column, we are not a little surprised to find the word *output* being followed by the plural verb *are* in the following sentence:—"The good, bad and indifferent *output* of the Calcutta factory *are* reduced to the same level." While we admire the humour of the passage, we are not sure if we can find it in our heart to reconcile ourselves to a plural verb being given to *output.* Surely, such words as *government*, *committee,* and others too numerous to mention, may have singular or plural verbs given to them, according to the choice of the writer, but can the same privilege be claimed in the use of the word *output* ? Another equally "elegant" piece of English is to be found a few lines below:—"The following instance I have heard from the lips of the gentleman concerned." In our humble opinion, to *hear an instance from the lips of* a person is just such a piece of English as would make one gasp. On the same page, we find these two sentences:—(*a*) A veteran Indian scholar,…… ………recognised as the greatest authority on 'Hindu Astronomy' was invited to act as *external* examiner in that subject:" (*b*) "This veteran scholar has never since been appointed *an* external examiner." It altogether passes our comprehension why the same "external examiner" should receive differential treatment at the hands of the veteran professor on two different occasions, being once allowed the essential appanage of the indefinite article "a," and then deprived of it, apparently, for some mysterious reason. On the same page, again, occurs the following:—"He does not know whether his questions were *scrapped up* and a totally new and easier set of questions was given to the candidates." We do not quite see what we are to understand by "scrapped up." "Scrap," when used as a verb, means, to "throw on the scrap-heap"; and, hence, figuratively, to reject; but, then, so far as our limited knowledge goes, the word is not followed by "up." The Under-Secretary of State for India said, the other day:—"The contention that the Reforms Act ought to be *scrapped*, etc." No *up* after *scrap*. In the course of the article in question, the American slang word *boost* is pressed into the learned professor's service, perhaps half-a-dozen times, and it is invariably followed by *up*. To *boost* a man is to push him from behind in his effort to climb, and hence, to afford him such assistance as would enable him to get over a difficulty; but we have serious doubts if *boost* is ever followed by *up*.

With the permission of our readers we would go back a little further, and consider the English of Professor Sircar's article in the July number (1921) of the *Modern Review,* if only to show that that ambitious performance of his is as much vitiated by solecisms and things of that kind, as his equally ambitious performance in April last. On page 2, at the left-hand column, we are amused to read :—" It is open to our University to levy an annual *chauth* from the half-starved high schools and *ghas-dana* from the poor students who are forced to buy monopoly text-books issued by the University." While we cannot withhold from the witty professor our humble meed of genuine admiration for the capital joke he has perpetrated, we are afraid, too dear a price has been unwittingly paid for it by him, that price being the doubt that certain people may be led to entertain as regards his sole claim to " elegant English." Do we levy a tax *from* a people, although that tax may be in the nature of "an annual *Chauth* ?" In England they levy taxes *on* people ; but "an annual *Chauth* " being a purely Indian affair the learned professor, for aught we know, may have thought fit to *Indianize* the English phrase "levy a tax *on,* " transforming it into "levy a 'Chauth' *from.*" Is this the ripe fruit of years of "real research ?" What, by the way, is to levy *ghas-dana* from poor students, we wonder! To impose a levy on the *ghas-dana* of poor students is not quite beyond the capacity of a humble student of English ; but to levy *ghas-dana from* poor students is a feat of which the great professor alone is capable. On page 4, at the right-hand column, is another rare specimen of " elegant English " to which a professor, and a researcher into the bargain, can legitimately aspire :—" A Scottish teacher on his return from a visit to the German Universities, delivered a speech in which he highly praised their scholarship, their methodical habits and efficiency of equipment." Germany, as we all know, is a land of wonders ; no wonder, therefore, our wonderful professor and researcher should, in the manner of the Scottish teacher, talk wonderingly of, that wonder of wonders in the region of the *King's English,*—" the scholarship" of the German Universities, and their "methodical habits!" Small men, like ourselves, can, by no stretch of imagination, rise to the conception of "Universities" being talked of as being possessed of "scholarship" and having "methodical habits." But the greatest of latter-day Indian researchers must be "of imagination all compact," and, as such, must be capable of rising to heights unattainable by ordinary men. A sentence or two more, and we have done. On page 5, at the right-hand column, we have:—"The remuneration for teaching 'a second subject' varies from Rs. 50 to Rs. 200, without any regard *for* the extra amount of labour rendered." "Without any regard *for*," or, "without any regard *to*?"—we ask in all humility. At the bottom of page 5 and the top of page 6, we read:—"The proposal is carried amidst the *rapt* applause of some members." What we are to understand by "*rapt* applause," is more than we can pretend to determine. On page 6, at the right-hand column, we read:—"The teacher, in order to be efficient, must command self-respect if he is to command the respect of his pupils." We may command other people's respect, but do we "command self-respect?" The sentence, we are inclined to think, would read much better, if it were like this:—"The teacher, in order to be efficient, must *possess* self-respect, etc." In the following sentence on the same page, and in the same column, occurs:—"One of the last public remarks of Sir Rashbehari Ghose on the University was complaint to this effect." Should it not be "*a* complaint to this effect?" On page 8, we read:—"The University lecturers.........were still teaching heresies which were exploded half a century ago in Europe." "*Were* exploded," to our mind, should be "*had been* exploded." On page 9, occurs the following:—"The Senate should be formed on the most widely extended basis. *The* franchise should be given to all graduates of seven years' standing." Why, on earth, should "franchise" be preceded by "the?" So, Mr. Panchanan Mitra and the latter-day P.R.S.'s and Ph.D.'s are not the only delinquents in the use of the definite article. Even the professed purger of other people's literary impurities may sometimes nod.

After what has been pointed out, we are driven to the irresistible conclusion that our learned professor is hardly the proper person to make fun of other people's bad English, his own being decidedly "below par," to say no worse of it. We stop here to-day; but we propose to return to the subject in a future issue of the *Calcutta Review*. When we take up the subject again, we shall endeavour to show that neither the renowned professor's *magnum opus* "Aurangzeb," nor his later performance "Shivaji and his Times," is written in the most unexceptionable kind of English. How much we wish we had been competent to enter the lists and measure our strength with the sturdy champion of "elegant English!" Should there be found one, equal to the task, among the ardent lovers of the Calcutta University, let him come forward and buckle his belt. If he is in need of a proper form of challenge, he will only have slightly to vary the memorable words of the exasperated hero, and fling them in the redoubtable professor's face :—

'Lay on, *Sircar*,
And curst be he that first cries 'Hold, enough!'

HAMMERER

IN DAYS GONE BY

Down by a waterside slum of Cairo, lived a Sage as learned as he was old and wizened. Many had heard of him, some viewed him from afar, and a few knew him well. These last travelled from distant lands over deep seas to seek his advice; from the present and new world they came, seeking to peer into the past and old.

"What was I, O my father?" asked one who spanned wide rivers with bridges in the west, and was known as a Master Builder. "What did I, O my father, in the days gone by?" "Look in my mirror" said the Sage, handing him an oblong glass—and the Builder looking therein, beheld himself an eater of Hyoscyamus—eating the Hyoscyamus and walking in a motley procession, performing many strangely, weird, tricks.

"What was I, O my father?" asked a great man—a Painter from a north country, whose parchment skin and shaking hand denoted signs of unrest—" I am famous in the world for the cunning of my engravings, yet having all seem I to have missed something."

"O lover of beauty," laughed the Sage, "look in the mirror." Looking in the glass the Painter beheld a youth, slim, beautiful, who knelt on a silken cushion in a pillared hall and poured wine from a crystal vase, for an Imperial Master; and the eyes of a king narrowed with appreciation at each of his graceful movements, and a queen refused to sip the grape's juice till his lips had touched the goblet's rim. A great delight entered into the heart of the gazer. "Surely he is familiar, and yet strange," he cried. "In my mansions there are many statues and engravings from the store houses of the world—but none so perfect as this youth."

"That was you," said the Sage, nodding, "and the beauty you seek in others and strive to fix even on canvas sheets, the birthright you once lost."

"I juggle with nations, I sway the minds of men—what might I have been in ages long gone by?" said one —a Politician. "See," said the Sage, and the man of power beheld himself squatting on the ground by the jetty of a vast harbour. Before him rose a high pile of water-melons, and around him thronged men of many countries, chattering in strange tongues.

"I am a writer of books," said a squat man with a high forehead. "In my works I propound the various theories of life. I am renowned for my firmness—for never changing my mind. I would know in my last existence what it was that gave to me this iron will."

"You were a dealer in Cyprian mules," said the Seer, handing him the mirror—"see if I speak not the truth."

"I own vast emporiums of gold—men give me their wealth to keep," cried a fifth—"what kept I in the days gone by?"

"A tavern on the Bosphorous," laughed the Sage—"seek not further."

"I am a great designer," cried a sallow-skinned man with long hair. "I make garments for the most beautiful women in the world—I furnish the wardrobes of queens. Whence did my hand inherit its cunning?" "Since first you held the handkerchief for Sheba's queen. You'd better look for yourself in case you think I'm joking," said the Sage. And the Master Tailor seizing the glass beheld a vast hall and himself kneeling before the seated form of a woman with the strange, striking beauty of a fairer age. His hands held a wondrous silken fabric which the jewelled knife of the lady severed. The doors of the hall were guarded by winged stone lions and dark-skinned slaves waved fans of coloured feathers. The voice of the Sage came to his ears from a far distance. "This is Balkis, Queen of Sheba, wife of Solomon, O my son, and the fabric you hold, the first handkerchief that was ever invented."

MIRIEM KHUNDKAR

HOLLYHOCKS

The streets of heaven, I've been told,
Are paved with bricks of solid gold;

The gates are all of precious stone,
And poverty's a thing unknown;

No thunder-showers enter there,
For every day is dazzling fair.

Yet, strangely, I have never heard
A flower mentioned, or a bird;

And I'm quite sure that I would tire
Of playing on a golden lyre;

So, if there's room, along the walks
I think I'll plant some hollyhocks.

I'll water bring, to make them grow,
And tend them with a golden hoe.

If Gabriel should pass my way,
I'm certain he'd sit down and stay.

WAYNE GARD.

ANCIENT ARABIA [1]

The ancient Greek and Roman geographers, as is well known, divided Arabia into three regions: Arabia Petræa along the North; Arabia Felix, occupying the Western half of the remainder; and Arabia Deserta the Eastern. The division does not indicate a very extensive or accurate knowledge of the facts, for the eastern region is far from being all desert land, and Arabia Felix, or Araby the Blest, should apply only to the province of Yemen, whose produce of spices, and their trade along with India's wares northwards were the source of benefits to places lying along this trade-route otherwise none too well favoured by nature. The title "Arabia Felix" was conferred because throughout the world its people were believed to be possessed of fabulous wealth, treasures untold of gold, precious stones, and spices. Partly for exploration, and partly under the influence of the "rumour which had prevailed from all time," says Strabo, of the great riches of this people, who "exchanged their aromatics and precious stones for silver and gold," the Roman emperor, Augustus Cæsar, about 24 B. C. sent Aelius Gallus, Prefect of Egypt, into Arabia with an army of eleven thousand. Transported on ships from the Egyptian shore of the Red Sea, the expeditionary force set out from Leukekome, in Arabic el-Haura, *i.e.*, "the white village," some distance down the Hijaz coast from the Gulf of Aqabah. After six months' thirst-stricken wanderings tending southwards over the waterless waste, they took Nejran, in the North of Yemen. Penetrating six marches further, they came within two marches of the frankincense country, having reached Marib, but disappointed with what they saw, and broken by the hardships of the desert they withdrew. Only a weak remnant returned to the port of Egra, in Arabic el-Hijr, and now known as el-Wajh, after what they regarded as a short journey of sixty marches. Their experience remained a warning for centuries. The secret of successful penetration lies in a soldiery capable of enduring much and living on little, for Araby is "blest" only in a few regions.

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[1] Based on a Lecture delivered on 14th March, 1922 in the Indian Museum.

The western shore has been likened to the west coast of India. The littoral is a coralline formation, backed by a line of low hills, together constituting the Tihamah or "lowland," and resembling the Konkan. To the east rises a chain of mountains, corresponding to the Western Ghats, forming a natural boundary to the two provinces of Hijaz and Yemen lying between them and the sea. The northern province of these two extends from the Gulf of Aqabah to a few days' journey south of Mecca, and is known as the Hijaz, a term denoting "barrier," and properly applied to the mountain-range separating the Tihamah from Nejd, the "highland." To the east of Mecca the mountains attain their greatest elevation, and from this plateau the land, with occasional interruption of mountain chains, slopes gradually towards the Persian Gulf.

The Hijaz is really a poor country, suffering much from drought as its valleys, called Wadis, depend on the very occasional heavy rains for a supply of water. Since the sixth century of our era the fame of this province has eclipsed that of all the others, for it contains the two holy cities of Mecca, the ancient Macoraba, and Medinah, or Yathrib of olden times. The former is renowned as being the city of the Kaabah, which Abraham had built as the first House of God, and which had become a time-honoured place of pilgrimage, and a temple of many idols; this city was also destined to be the birthplace of the Prophet. Eastwards the mountain-range broadens, and provides the most fertile part of the Hijaz. The orchards here abound in fruits such as are found in Southern Europe. Mount Barad, the ancient Ghazwan, is sometimes covered with snow even in summer. The alpine town of Taif is a summer resort of the well-to-do of Mecca. The eastern part of these highlands is occupied by the Qahtan, the parent stock of the Arabs of Yemen.

In the vicinity of Mecca is Ukaz, the "Olympia of Arabia," where in the pre-Islamic period, known as the Jahiliyyah, and at the beginning of the three sacred months during which the clash of arms ceased throughout the land, was held a great annual fair. Merchants taking advantage of the short period of security came from far to exchange their wares, and poets seized the occasion to hold a literary congress in which they recited publicly their most fancied composition, and made a bid for fame.

Arabia was administered from the political capital of Damascus first, and afterwards, under the Abbasides, from Baghdad. Owing to its distance from the political centre, the recurring confusion within the Moslem Empire, and the local affection for members of the House of the Prophet living in the pilgrimage-city of Mecca, the heads of certain families descended from the Prophet's daughter and his son-in-law Ali began to assert themselves, and in time became powerful in the Hijaz. This movement started about 1000 A.D. Since 1200 A.D. one line of these descendants, that of Katada, has been supreme in Mecca. The leading representative of the family became known as the Shereef of Mecca. Its power varied with the personal ambition and strength of the Shereef. Baghdad, Egypt, and Constantinople, during their suzerainty over the Hijaz, have all found it expedient to recognise in a measure the claims of the family. During the late war, the present representative of the line, the Shereef and Emir Hosain, formed the Hijaz into an independent kingdom, and now rules over it as king.

To the north is situated the other of the two holy cities, Medina, or more fully, Medinat-un-Nabi, *i.e.*, "the city of the Prophet," which offered hospitality to him when he despaired of the citizens of his own town. It is situated in a volcanic region; a chain of lava-fields, called "harrahs," extends north into Syria. In a long-bygone age tombs have been cut in these black mountains at El-Elaa, Khereibeh, and Medain Salih, and inscriptions and drawings made on their face. In the valleys there is considerable fertility; dates are the staple diet of the population.

It is the terminus of the Hijaz railway, which passing over the old trade-route northwards and the caravan-route to Damascus, has replaced the latter as a way of transport, and reduced the inconvenience of the pilgrims for centuries submitted to the severe extortions of the robber Beduin.

The other province on the west coast is Yemen; its physical features resemble those of the Hijaz in great measure; there is the Tihamah or lowland, and the mountainous hinterland, where a plenteous vegetation is found; in the southern mountains are coffee plantations, arranged in cultivation-terraces. This province contains some of the most historical places in the peninsula: the plateaus of Nejran in the north, Marib in the east, and of Sana, the capital in the centre; to the south is the one time Himyaritic capital Zafar. From before 1000 B. C. onward it was administered by successive organised monarchies: the Minaean; later, by the sixth century B.C., the Sabaean, some thirty of whose kings are known to us now by name; and lastly, from the first century B.C. to the end of the fifth century A.D., the Himyaritic, which partially continued the trading traditions of its predecessors with the Roman Empire .

Yemen possesses a small stretch of railway from Hodeida on the Red Sea coast to Sana. As the line from Damascus to Medina is the only other railway connection, the land is extremely deficient in means of communication.

The Imam of Yemen is an independent ruler.

Eastward lies the mountainous province of Hadramaut, which though inhabited by an active, industrious people, no longer retains its former prosperity and wealth. In its eastern portion is Mahra or Shihr, the "incense coast." Incense, for which this part was long reputed and which figured prominently in the caravan-loads, is now of limited cultivation.

North of Hadramaut the great, bare desert, known by several names, El-Ahqaf, or "the dunes," among others, begins and extends to the highlands of Nejd, the healthiest part of the peninsula. The latter is the homeland of a vigorous people, of great independence of character. Towards the end of the eighteenth century and in the beginning of the nineteenth a religious movement which commenced here made its influence felt throughout the country. Originating with Muhammad bin Abdul-Wahhab, a strict puritan, and known after him as the Wahhabi movement, it inspired his followers with so much of his reforming zeal, that they swept over the greater part of the land and possessed themselves of the two holy cities by 1803; and of these they remained in occupation till 1813. In 1818 however their capital, Diriyyah, capitulated to the Turks. Since then the province has reverted to its conservative tribalism.

The Nejd breed of Arab horses is well known throughout the world.

Northwards of Nejd is another vast stretch of desert, known as the Nufud. Lady Blunt is one of the few European travellers who can claim the distinction of having crossed it.

On the Persian Gulf lies the province of Oman, a fertile country, especially in the hilly interior. The port Masqat has a good harbour, but a notoriously hot climate. By the eleventh century A.D. Oman had shaken off the Caliphate, and has its own independent sultanate.

To the north is the province of el-Ahsa, known as Bahrain in the beginning of the Muhammadan period. Then and for some time before there were two adjacent towns, Hajar, the capital, and el-Ahsa or el-Hisa, the same name as that of the province, and possibly a plural denoting places where wells have been dug to the water lying near the surface. Both are mentioned in pre-Muhammadan times, Hajar as the see of a Bishop of the Nestorian Church, and el-Hisa in a line of the Muallaqah of Harith bin Hillizah:

> " When we urged our camels forward on the way
> From the palms of Bahrain till el-Hisa was reached."

In 314 (c. 928 A.D.) Abu Tahir of the Carmathian sect built and fortified el-Ahsa, and transferred to it the capital, whence proceeded his nefarious forces which spread over South Persia and Yemen, sacked Mecca, carrying thence the sacred Black Stone of the Kaabah, and brought orthodox Islam almost to the brink of disaster. Northwards, on the western arm of the Persian Gulf, is Koweit, the diminutive form of the Sanskrit word "kot," a fort.

The province is famous for its dates, in connection with whose plenitude there is a proverb corresponding to our carrying coals to Newcastle.

Throughout its extent from the Red Sea to the Persian Gulf, and from the south coast to the Gulf of Aqabah, and the Syrian frontier to the Euphrates, the land called by the Arab geographers " Jazirat-ul-Arab," or peninsula of the Arabs, divides itself naturally into portions capable of sustaining a settled population, and others where only Beduin, dwellers in the Badiyah or desert, *i.e.*, nomads, can maintain themselves, finding in many instances only a bare subsistence. Impelled in part by their meagre fare, and in part by their lust of brigandage, to levy blackmail, the latter are a source of disquietude to neighbouring states, and to the traveller, and security has to be bought from them at a high figure.

This division has persisted throughout the ages ; in the ancient towns of commercial, settled regions, trade tended to level tribal distinctions, and political and social unity enabled them to develop a civilisation of a tolerably high order ; outside such regions, in the desert, however, there has always existed a tribal organisation so thorough and permanent that tribal institutions can be studied there in their perfection, both in the dead testimony of their ancient literature, and in living example. This organisation comprises first the tribe or clan, the main division, constituted of a number of sub-tribes who trace their origin to a certain common ancestor. Should a tribe or a sub-tribe grow unwieldily large, a number of families may hive off and institute their own clan, independent, but retaining the memory of its blood-connection. If on the other hand a tribe should weaken so in strength of numbers that it cannot defend itself against stronger enemies, it may attach itself to a more powerful, recognising its authority. To repel a common dangerous foe several tribes sometimes unite forces until the peril is past.

The family is the next division, but this must not be understood in our sense, as a household consisting of parents and their children, with individual values, but one in which the nearest relatives, their children and grand-children live together, and the individual value is entirely subordinated to the clan-interest. The point of view therefore is social, or rather syndical, not individual.

All look up to a chieftain as their tribal head ; theoretically his office is not hereditary, nor is it autocratic, for he is one among equals in their counsels. He must be a sage adviser in their deliberations, and of trusted competence to lead them into battle.

In the tribal code of honour manliness (Muruwwat) is the prevailing note. Their conception of it does not coincide with ours, but there are elements in it which call forth the active virtues. Each must acquit himself bravely, face hardship, be generous with his goods, hospitable to the guest, guard at any cost the honour of the tribe, love its friend, shield its protégé with his own life, hate its enemy, and carry out its feuds.

Of such desert-customs two might here be specified. The former is an interesting relic of a primitive matriarchal system, under which the mother plays the prominent role, and inheritance is through her. We read in the *Aghani* that in the period "of the Jahiliyyah, wives, or some of them at any rate, used to divorce their husbands. Divorce took this form,—if the wife was in a (camel-) hair tent she turned the tent round, *i.e.*, if its door-way was facing the east, she turned it towards the west; and if it faced Al-Yemen (lit. the right hand, *i.e.*, the south), she turned it towards Ash-Sham (Syria, *i.e.*, the north). When the husband saw that, he knew that his wife had divorced him, and did not go to her."

The other is the custom of blood-revenge for the slaying of a tribesman by a member of another tribe. Retaliation is a universal instinct; in our modern state we yield our claim to exact justice to the state, but among primitive men, or men only emerging from primitive conditions, the kinsman is bound to seek out the murderer, who has shed blood flowing in the veins of all the clan, and to do him to death; it may be after the expiry of long years, but the liability to exact a life for a life is an obligation from which there is no escape, for the dead man's spirit calls out from the grave-head for blood. In requiring the penalty no distinction is made between what are to us fair means and foul.

Another practice may be mentioned, that of burying alive female infants at the moment of their birth, a barbarous practice prompted by fear of there being too many mouths in the likely event of famine, the bane of Beduin life, or of loss of honour through their captivity. Humanitarian sentiment was beginning to assert itself against the custom before the coming of the Prophet, who however suppressed the practice by the injunction: "Kill not your children in fear of impoverishment: we will provide for them and for you: verily their killing was a great sin."

As regards their religious ideas suffice it to mention here that idolatry prevailed throughout the desert regions, stones being the usual object of veneration; in the empires of the south there was a rich pantheon of astral deities.

Life for the nomad passed pleasantly withal, save during times of adversity of famine. The men had the chase, wine, and Maysar, a game of chance with arrows; the young men were ardent gallants when tribes foregathered by the oasis; boys played games as boys are wont, the humming-top set spinning with a piece of cord making a favourite pastime.

The Arab genealogists trace the origin of the northern tribes through Adnan to Sam (Shem), son of Noah, and that of tribes in the settled south through Qahtan (Yoqtan), son of Abir (Eber), likewise to Sam or Shem. The great difference between the nomadic life of the north and the prosperous, cultured life of the south must have helped to confirm this tradition of two lines of descent. That they were of the same stock is undisputed, and the Arabs in their totality are classified with the Babylonians, Assyrians, Hebrews, Phoenicians, Aramaeans, Abyssinians, as Shemites or Semites, a derivative of Shem, a term first applied to them by Eichhorn in the beginning of the nineteenth century.

With the advent of the Prophet, Muhammad, a new epoch commences in Arabia. Just as from the point of view of religious development Islam represents for its adherents the culmination of revelation, standing to Judaism and Christianity in the relation of the evening-prayer to the morning- and the midday-prayer respectively, and thereby marking the consummation of the day's manifold activities and aspirations, the 'end of the perfect day,' so Islam marks a very definite change in the social development of the country. All that is pre-Islamic, *i.e.*, earlier than the close of the sixth century, is characterised as belonging to the period of the Jahiliyyah, a term denoting the opposite of *hilm* (stability, integrity or soundness, clemency), and therefore wild, uncultured, barbaric life.

Until last century comparatively little was known of this early period. Our knowledge was dependent on secondary sources, *viz.*, Arabic tradition, and little enough of that as the early Muslims were unfavourable to the preservation of too much that belonged to idolatrous times ; secondly, Greek and Roman literature, neither a very significant nor an entirely reliable aid ; and lastly, the Old Testament, whose scattered references were occasionally important, but owing to the want of topographical and chronological information could not be fully utilised, until in the twentieth century the discovery of the invaluable Babylonian and Assyrian monuments and tablets, and more important still, the re-discovery of the key to their interpretation, without which they must ever have remained monuments in stone and clay, explained and greatly supplemented them.

Yet this Arabia, so unpromising in its physical features and so backward in the modern competitive struggle of the nations, was destined to be the home-land of a race, the Semites, which attained a fairly high degree of culture within its borders, and a still higher without, when it went forth and assimilated elements of neighbouring civilisations. This desert land has never been in a position to maintain for long large masses of population. Under pressure of economic necessity resulting from surplus numbers and insufficiency for all, families and even tribes migrated ever northward in quest of pasturage for their flocks by oasis and stream. This was not a concerted movement ; they straggled north in small parties, though an exceptionally severe famine may have greatly increased their numbers.

Two fairly well defined waves of emigration northwards out of Arabia can now be traced. The former probably belongs to a period not later than the fifth millenium B. C. At that time we find in the northern part of lower Mesopotamia Semites, with centres at Akkad, Kish, Babylon, Sippar, etc., and in the southern Sumerians. It is not yet decided which were first in the land; probably the Semites were the first settlers, and the Sumerians bringing a superior culture came in from the north. The earliest cuneiform texts inform us not of the immigration of either, but of a time in which a process of assimilation had set in. The Semites were held in check at first by the Sumerians, but the day of conquest at length came to them, and the foundation of the Semitic dynasty of Kish or Akkad by Sargon I, about 2675 B. C., marks very definite progress on the part of the Semites. His victories extended mainly towards the west. Pushing up through Assyria, at that time the seat of a mixed population of Semitic tribes and of Hittite groups, he reached the shores of the Mediterranean. But the continuous clash of these two races had greatly exhausted them by 2500 B. C.

The second wave of Semitic immigration began before the end of the third millenium. The new Semitic settlers in the Euphrates valley refer to themselves as Amorites. Beduins lately come from the desert steppes and possessing no great culture, they took over the language, cult, and customs of the consanguineous Akkadians.

By this time Babylonian-Assyrian influence was widespread in the Near East. For instance, probably as early as 2400 B. C. an Assyrian colony, speaking an Assyrian dialect interspersed with words from the neighbouring Asianic languages, had settled in far Cappadocia. From cuneiform tablets found near Kaisariyeh we learn that by the end of this third millenium culture has so far advanced in Cappadocia that these Assyrians, uniting with the local Asianic peoples, whose influence so far prevails that the joint community recognises a week of five days, have set up a republican form of government, under which women have equal rights with men, and have founded a women's University, constituted of two Colleges, one for Letters, and one for Arts and Crafts.

This second flood of emigration into the culture-lands marks one of the greatest epochs in the world's history, for it synchronises with or was followed by a movement of the peoples of the Near East. In Syria and Palestine the Canaanites appear; the mysterious Hyksos dynasty establishes itself in Egypt; the Phoenicians and Hebrews push on to the Mediterranean coast, and the Chaldeans make their influence felt in Southern Babylonia. These Canaanites, Phoenicians, and Hebrews however have assimilated much less of the Babylonian-Assyrian culture than their forerunners. They have developed their own, thereby enabling us to distinguish between an East- and a West-Semitic civilisation. Particularly is this the case with the Minaeans, who unlike the other tribes wandered from the north to the south of Arabia, to the Yemenite Jauf, of which Marib is now the capital, and there established a kingdom. The Qatabanians and Hadramautians probably found their way south about the same time.

For our knowledge of this southward movement and all it involved we are almost entirely indebted to the inscriptions copied in and brought from Yemen, from 1810 A.D. onwards, by European travellers at imminent peril to themselves. The inscriptions were engraven on blocks of stone, columns, plinths of statues dedicated to the gods and set up in the temples, on temple-walls, and on bronze-tablets. The favourite ornamental motives are lion-sphinxes, trees and rosettes. There are also numerous figures of men offering sacrificial gifts on the altar, behind which the priest is seated; in the secular scenes, the camel-driver is frequently represented. They are mostly votive monuments, in which buildings are dedicated to a certain god or to all the gods, by one or more of the members of a family. The language of these monuments is dialect Arabic, the main dialects being four in number: Minaean, Sabaean, Hadramautian, and Qatabanian. We learn that each of these kingdoms had a rich pantheon, with some gods in common, though not always known by the same name. The ritual has striking points of connection with that of the Old Testament; there were altars of sacrifice, altars of burnt incense, and prescribed ablutions.

The role and place of the Minaeans in history is not yet definitely settled, and dates cannot be fixed with certitude, but it is probable that some time after 1500 B.C. the Minaeans had succeeded in setting up a flourishing empire in the Jauf. Their rulers are called Kings of Main, whence the name Minaeans; their capital was Karnawu. To the south were the Qatabanians, and eastwards the people of Hadramaut, both of which kingdoms survived the downfall of the Minaean empire. Their prosperity was due in great measure to the myrrh and incense they produced. The Minaean state however appears to have surpassed them in importance and to have been the leader in culture. Whether the latter found an earlier civilisation in their new settlement is not yet known; the script of the oldest monuments is well developed, indicating long practice, and their state-organisation is well advanced, and their trade-route defended by military stations.

The prosperity of the Minaeans was based in the main on the fact that their state was an emporium for the wares of India and the lands on the Mediterranean. The route passed northwards through the Hijaz. In north-west Arabia for the defence of this trade, a Minaean colony was founded in Mussri or Mussran, probably the Midian of the Bible. The colony brought from the south its deities and ritual; Kabirs administered it as governors on behalf of the mother-land. In the eighth century and after the Assyrian kings Tiglath Pileser III, Sargon, and Asarhaddon all turned their attention to Mussri and brought it under their sway, and by this time we may suppose its connection with the mother-land had ceased. Though continuing to be a trade-centre it waned in importance, until about 200 B. C. an Arab group, the Nabateans, established themselves in Mussri. Their centre was at Medain Salih, to the rock-built tombs of which place, with their splendid facades, Doughty drew attention some forty years ago in his "Arabia Deserta," whose quaint, Elizabethan style has made the book doubly a classic. No traces of its advanced civilisation are found south of Medain Salih, where it was probably held in check by the Lihyanites, who in the second or first century B. C. succeeded the Minaeans at El-Ela and Khereibeh. The art of the Lihyanites is inferior to that of their predecessors and the Nabateans.

The loss of Mussri marks the beginning of the end of the Minaean empire, which eventually fell a prey to the Sabaeans. The home-land of the Sabaeans was Yareb, on the North Arabian Jauf, and east of Mussri; it is probably to be identified with the Aribi of the cuneiform inscriptions. Affected by the general spirit of migration, the Sabaeans had moved southwards, perhaps in the ninth to the eighth century B.C. They may have gone only a little way south of Aribi at that time, for Sargon (715 B.C.) states in an inscription that he imposed tribute on Piru, king of Mussri, Samsi, queen of Aribi, and Itamara the Sabaean, and others. From this it is concluded that they had not yet penetrated to Yemen.

And what of the Queen of Sheba? Frankly, the Biblical reference seems to be an anachronism. Queens of Sheba are known to us, but several centuries after Solomon's time. On the other hand Tiglath Pileser III and Sargon mention two queens of Aribi, *viz.*, Zabili and Samsi, and the queen of the Solomonic story may have been a queen of Aribi, but could not well have been queen of the state of Saba, our Sheba, not then in existence.

Soon after Sargon's attack the Sabaeans must have pressed on the frontiers of the kingdom of Main. They gradually made themselves masters of several neighbouring regions, and for some two hundred years had their own ruling house of Priest-Kings (Mukarrib). Eventually, gaining strength sufficient for an attack deciding the issue, and led by the valiant Kariba'il Watār, one of the last of the Priest-Kings, they challenged Main on field of battle, and won supremacy. They engaged in many a campaign to extend the confines of their realm, and carried war into the territories of the Hadramautians and Qatabanians. Their ascendancy lasted from about 500-115 B.C. But though predominant in the field, they sustained a blow from which they never recovered; the monopoly of the Indian trade, which for a thousand years or more had been the main source of Yemen's strength, was now broken. Alexander had purposed to make Babylonia the entrepôt in place of Arabia for the Indian trade, but his death had left his project unaccomplished. In the time of the Ptolemies however the adoption of the sea-route in preference to the over-land relegated to the almost forgotten past the busy days of the old-time trade-route.

The day of the Sabaeans came to an end; after long fighting they were compelled to yield supremacy to the Himyarites, a tribe from the south-west corner of Arabia, whose power was in time challenged by the Habashi or Abyssinians, likewise a tribe of the south, but which in the time of the Sabaeans had migrated to Abyssinia. Some of them returned to settle on the south coast of Arabia, where gathering strength they were eventually in a position to possess themselves of the throne. Their period is characterised by internal dissension, and by the clash of new forces, owing to the entry of Judaism and, later, Christianity into the field. After the destruction of Jerusalem by Titus, Jews in considerable number found their way into the south, and devoting themselves to trade acquired in time a position of influence. Combining with the Himyarites against the Abyssinians, they actually succeeded in setting up a new kingdom, whose best-known representative, Dhu Nuwas, professed himself an adherent of Judaism. His opposition to Christianity newly introduced by the Abyssinians was bitter. But in

525 A.D. a fresh contingent of the latter, supported from Christian Byzantium, arrived and seized the sovereignty. Their possession was not of long duration; in 575 Persia at the instance of some Arab tribes sent a force which overthrew them, and set up governors in Yemen, who remained in authority until some fifty years later Islam spread itself triumphantly over the whole peninsula.

A. H. HARLEY

TIME [1]

Yesterday is a ghost,
To-day is a process,
And To-morrow—a dream.

WAYNE GARD.

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[1] The *Forum*, June, 1922.

SOME CHARGES AGAINST THE CALCUTTA UNIVERSITY AND ITS *PERSONNEL*

Prof. Jadunath Sarkar, M.A., P.R.S., of the Indian Educational Service, in his article on the "Calcutta University Reform" (Modern Review, July, 1921) purported to indicate some *true* lines of reform of the Calcutta University.[1] He has of late come forward with another article headed "Present Condition of the Calcutta University" (Modern Review, April 1922) bearing on the same topic. Both of them have been written in the same spirit and contain much that is personal and baneful. There is hardly anything valuable in them regarding the reform of the Calcutta University. Their manifest object seems to be to bring the Calcutta University and its *personnel* into discredit. As it comes from the pen of a scholar of some repute, we propose mainly to examine some of these charges.

Criticism, real criticism, is a sacred task. It is always "sincere, simple, flexible, ardent, ever widening its language." "Its business is," says Matthew Arnold, "simply to know the best that is known and thought in the world, and by in its turn making this known, to create a current of true and fresh ideas." But criticism which is carried on for the purpose of some "ulterior, political, practical considerations about ideas," "which is directly polemical and controversial," and which never keeps "a man from a self-satisfaction, which is retarding and vulgarising" has unsparingly been condemned by the same high authority. Judging by the above standard, we must say that Prof. Sarkar's polemical criticism of the Calcutta University is undoubtedly venomous and vulgar. By way of illustration we quote below some of his utterances:

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[1] Some of his proposals were reviewed by us in these columns in October, 1921.

"*It is unwise to forget the Panjabi proverb, 'In his own lane the dog may call himself a lion'—but outside he will be taken for a dog only. You may lionise your profuse output of P. R. S.'s and Ph. D.'s (of home manufacture and hall-marking) as much as you please in your Senate speeches and hired newspapers.*"

"*The eunuchs of the Byzantine Cæsars are not known to have enriched mediæval Greek literature. The flatterers of the Mughal Emperors have made no addition to India's stock of knowledge. The sycophants of 'the incarnate Saraswati' 'the perfect Buddha and universal sovereign of the sacred Lore,' 'the Vikramaditya of the 20th century,' and 'the Equal of Shivaji' (a dubious compliment !), cannot expect this rule of nature to be suspended in their favour, because they ply their trade in India.*"

"A University does not add to its reputation if it constantly sits by the roadside, exposing its sores and *whining for public charity or snarling at Mr. Sharp when he passes by without consenting to add to this year's national deficit of 19 crores.*"

"In every country in the world it is possible to set up a *corrupt jobbing clique, like the Tammany Hall of New York, under the formality of the law, by deceiving the public and manipulating the electorate,* if the public are indolent and timid."

"*No sneak, no sycophant, no 'jobber' can be a true scholar. No plagiarist, no compiler, no 'scissors and gum-bottle man' can add to the world's stock of knowledge, though he can and often does add to the income of the advertisement department of newspapers.*"

"This gentleman has been excluded from the list of examiners and the *Calcutta University ostrich* has been hiding its head in its sand heap with unperturbed self-complacency ever since."

I need not multiply instances. The articles are full of such expressions. It appears that lack of good taste is an invariable concomitant of true scholarship of which our learned Professor is so very proud. It requires high talents on the part of a man to write all these vulgar things! It is amusing to note that such rubbish when printed in the columns of the *Leading Monthly of India* is even relished by some of our countrymen for reasons best known to them. Such is the order of the day!

Socrates could not understand why men called him wise. On inquiry he found that men called him wise because men regarded themselves wise without knowing anything, but he knew that he had known nothing. Newton used to say that he had only been collecting pebbles on the shore of the ocean of knowledge, but the vast expanse of water still lay unexplored in his front. True scholars are humble and never think highly of themselves. But true scholarship, in the opinion of this worthy member of the Indian Educational Service, seems to consist in tall talk and empty boast, in vulgar and mean attacks upon the Calcutta University and its *personnel*. If this is scholarship, if this is wisdom, one may justly demand that it should at once disappear from the face of the earth.

Achievement of worldly ambition, by means fair or foul, often makes men proud and self-conceited. Some are proud of wealth, others of high position, others again of their abilities and scholarship. Professor Sarkar is rightly or wrongly inordinately proud of the articles manufactured by him as a scholar, if not of his high position as a member of the Indian Educational Service. But will our learned friend be pleased to learn that there are scholars who have viewed his achievements as a scholar in a quite different light? We give below some extracts from the reviews of his masterpieces. Our object is not to undervalue them, but to make the *soi disant* critic see himself. The *Saturday Review* writes thus:

" *The Professor himself knows best why he has written his history in English, but we feel some pity for the Indian* *scholars in Patna College who may have to master the contents of the class-books in a foreign tongue; for, besides the fact that there is a good deal of collateral history introduced which bears very indirectly on Aurangzib, we find the English straining after phrases, uncouth, and often involved in style. As an example of the involved—'a clever ruse of Aurangzib paralysed Dara's right arm by showing suspicion in his mind'*; *of the uncouth, 'He murdered the honourable ladies of his harem (!) in order to be free from anxiety about them, and then reported to Dara how he had composed his mind about certain objects (!) which make men hesitate and shrink from desperate exertion and fighting at such times of danger.' Tragico-comico this, with a vengeance!*"[1]

History of Aurangzib, Volume III, was reviewed in the *Indian Antiquary*, March, 1917, by Mr. G. Yazdani. We quote some lines from the same:

"*Again, when Professor Sarkar undertakes to pronounce against the tenets of Islam, a task for which he is by no means competent, he places himself at the point of ridicule. It is not necessary,' he says, "that he (Muslim) should tame his own passions or mortify his flesh; it is not necessary for him to grow a rich growth of spirituality. He has to slay a certain class of his fellow-beings or plunder* their lands and wealth, and this act in itself would raise his soul to heaven.' It is very evident that Prof. Sarkar has just arrived at 'fresh fields and pastures new.' An author who knows his limitations no better than that, cannot expect to receive serious attention from readers."

Professor Sarkar's "Sivaji" was reviewed in *The Times of India*, on the 15th October, 1919. We quote below an extract from the same:

"We took up this book, we must confess, with some apprehension that one who had devoted so much of his time to the History of Aurangzib would, no matter how much he wished to do so, be unable to do justice to Aurangzib's great enemy Sivaji. We regret to say that our fears have been abundantly realised. *Moreover we doubt whether any one as ignorant of Marathi as Mr. Sarkar seems to be, is really competent to assume the heavy task of writing the Maratha hero's biography.* To illustrate our meaning we will give one or two instances. At p. 17, Mr. Sarkar writes 'The democratic temper of the Maratha people is shown by their having no respectful mode of address like the Ap (Your Honour) of Northern India; all ranks are thee'd and thou'd. As a matter of fact the Marathas have in Apan an exact equivalent for Ap. No Maratha ever thees or thous anybody except a servant. He uses either Apan or tumhi. At p. 28 Mr. Sarkar mentions a rebel Deshpande named 'Marutan Dev.' There is no such name as Marutan in Marathi. The man's real name was Moro Tandev. At p. 42 Mr. Sarkar writes of Bhimri. The town's real name is Bhivadi. At p. 256 he refers to a battle of Jesari. It should be Nesari, a village now in the Kolhapur State. Lastly, throughout the book Mr. Sarkar has spelt the names of Maratha forts in the Hindusthani fashion, *e.g.*, Singhgarh for Sinhgad, Raigarh for Raigad, etc., etc. This is just as irritating as if a writer of English were to refer to London as Londres and to the Thames as the Tamise. *The result of Mr. Sarkar's pro-Moghal bias and of his lack of acquaintance with Marathi is that he has, we regret to say, given us, in spite of his immense industry, a picture of Sivaji unworthy alike of the subject and the author.*"

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[1] The *Saturday Review*, 24th May, 1913.

This much about the review of his work made by other scholars. But such reviews, we feel, do not detract from his reputation as a scholar. From the above all that follows is that criticism, favourable or unfavourable, is not always a true test as to the merit or demerit of a work. If so, why does our learned Professor lay so much stress upon the reviews of the works of the Calcutta University staff appearing in the columns of *the leading Monthly of India* often made by incompetent hands? Is it because that he stands connected with the same 'jobbing clique'? Professor Radhakrishnan's celebrated work *Reign of Religion in Contemporary Philosophy* whose matter, method, and language have been highly spoken of by eminent scholars and which has been prescribed as a text-book in some of the Universities of the West was very unfavourably criticised by one B.A., B.T. in the same paper some months ago, the critic's only qualification being that he is a gratuitous reviewer of *the leading Monthly.* This is an appropriate instance of the Editor's much-vaunted honesty and independence!

Next we take up Professor Sarkar's *Chaitanya's Life and Teachings.* This work though it purports to be based on *the Chaitanya-Charitamrita* hardly maintains his reputation as a scholar. In it we notice some unpardonable mistakes even at a cursory glance. He views the Chaitanya-Charitamrita as a "*contemporary Bengali* biography of Chaitanya," which is far from true. Chaitanya, according to Krishnadasa, was born in 1407 (saka) and disappeared in 1455 (saka).[1] But the Chaitanya-Charitamrita, according to the author himself, was completed in 1537 saka.[2] Hence how can it be viewed as a *contemporary* Bengali biography of Chaitanya? In the introductory notes to the work he says as follows:

"The young orphan, while still unmarried, was converted to Vaishnavism by Nityananda, and begged his way on foot to Brindaban, where he spent the remainder of his long life in religious study, meditation and worship. He was initiated as a Vaishnav-monk by Raghunath-Das, who along with Swarup Damodar, had been body-servants to Chaitanya during the saint's stay at Jagannath. From his guru, Krishna-das he learned the particulars of Chaitanya's life and teaching which has been embodied in the present biography."

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[1] চৌদ্দশত সাত শকে জন্মের প্রমাণ ;
চৌদ্দশত পঞ্চান্নে হইল অন্তর্দ্ধান ॥
আদি ত্রয়োদশ পরিচ্ছেদ ।

[2] The colophon appended at the end of the book which is taken as genuine by high authorities runs thus:

"শকে সিন্ধ্বগ্নিবাণেন্দৌ জ্যৈষ্ঠে বৃন্দাবনান্তরে ।
সূর্য্যেৎহ্ন্যসিত পঞ্চম্যাং গ্রন্থোহয়ং পূর্ণতাং গতঃ ॥"

Where does our learned Professor find that Krishnadas "was converted to Vaishnavism by Nityananda"? All that we find in the Chaitanya-Charitamrita is that Nityananda in a dream appeared before Krishnadas and asked him to go to Brindaban where all his wishes would be fulfilled. We think this can hardly be called conversion. Further, we learn from the work itself that he was a Vaishnava prior to Nityananda's appearance in a dream. Our learned friend tells us that Krishnadasa was converted as a Vaishnav-monk by Raghunath Das. We may point out that this is hardly true. The author himself states that Krishnadas along with other five Goswamins was his *siksha guru* as distinguished from *diksha guru.*[1] Prof. Sarkar further holds that from Raghunath Das he learned the particulars of Chaitanya's life and teaching which had been embodied in the present biography. This is again incorrect. In writing this work he obtained valuable assistance from Raghunath Das no doubt, but he drew his chief materials from other sources. We learn from the author that he wrote the chapter known as "Ramananda Milan Lila" in accordance with the Karcha of Swarup Damodar, and the chapters on "Rupa Siksha" and "Sanatana Siksha" in accordance with the works of Kavi Karnapur. The works of Rupa, Sanatan and other Goswamins also rendered him much help. But the main topics of Chaitanya's Life, according to the author's own statement, were taken from the *Karchas* of

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[১] "শ্রীরূপ, সনাতন, ভট্ট রঘুনাথ,
শ্রীজীব, গোপাল ভট্ট, দাস রঘুনাথ,
এই ছয় গুরু, শিক্ষা গুরু যে আমার।"
আদিলীলা, প্রথম পরিচ্ছেদ।

Murari Gupta and Swarup Damodar.[1] But Prof. Sarkar states that Krishnadas learned the particulars of Chaitanya's life from Raghunath Das. Again, the dates given in the book have been accepted without any critical study. In these circumstances, one feels tempted to ask, is it for this sort of sound scholarship that our learned friend does not hesitate to stigmatise all first-class M. A.'s, P. R. S.'s, and Ph. D.'s as 'mere compilers,' 'scissors and gum-bottle men'? Let our friend trumpet his own merit as much as he can, but the world will, in due time, take him for what he is really worth.

In order to achieve its purpose, every University requires a number of earnest teachers who will concentrate their attention upon different subjects of study and are prepared to accomplish their task with all their might. Its success is not to be measured by its apparent failure to achieve some ends, but *by the quality of its striving.*[2] Some writings of the teachers of the Calcutta University are good, others may be bad. This is equally true of the productions of the teachers of other Universities. But it must be borne in mind that the success of a University is not to be measured by its good or bad works, but by the *quality of its striving.* If the present Vice-Chancellor has succeeded in securing a number of scholars who are willing to limit themselves to special departments and are prepared to do their work in right earnest, he has undoubtedly achieved something great. Prof. Sarkar himself refers to the "man-power" of the Calcutta University. With such "ready appliances and man-power," the Calcutta University is in no sense a failure. But it suits Prof. Sarkar to compare its teaching staff to "the eunuchs of the Byzantine Cæsars" and he is an honourable man! Mr. Jayaswal rightly observes that

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[1] "দামোদর স্বরূপ আর গুপ্ত মুরারি,
মুখ্য মুখ্য লীলাসূত্র লিখিয়াছে বিচারি ॥
সেই অনুসারে লিখি লীলাসূত্রগণ ;
বিস্তারি বর্ণিয়াছেন তাহা দাস বৃন্দাবন ॥" আদিলীলা, ত্রয়োদশ পরিচ্ছেদ ।

[2] *Vide* Lord Haldane, Universities and National Life.

"Jadu Babu and Rakhal Babu are not the only honest products of the Calcutta University, nor are these the only gentlemen with whom original research ended in Bengal."[1]

We notice that Prof. Sarkar sees nothing valuable in oriental monarchies and denounces them in strong terms. He entertains a positive hatred for the civil administration of the Mughals. These are some of his precious utterances: "The *first and foremost cause of this phenomenon is the contrast between the spirit of all oriental monarchies and that of a modern civilized empire like the British.* Such a modern empire contains an element of self-criticism and reform within itself. Hence any new defect or source of decay in it is promptly detected and remedied before it can become incurable. Not so oriental monarchies, or even European monarchies of the ancient world, like the Roman and Macedonian." "The glories of Agra and Delhi in the golden days of Shah Jahan ought not to blind us to the fact that the Mughal Emperors never followed the first principle of political science, *viz.*, that 'there cannot be a great empire without a great people.' *Under even the best of them though there were great ministers and generals, the mass of the people remained 'human sheep' as in the worst days of the past.*" Every empire of the world possesses traits, good as well as bad. The British administration forms no exception to the rule. It is far from true that a modern empire like the British, "contains an element of self-criticism and reform within itself." As most of the European empires are rapidly approaching ruin and disruption, there must be something inherently wrong in them. They can hardly be conceived to possess sufficient self-criticism. Empires which are prone to rapine and plunder and are ready to hurl themselves on weaker nations in order to grow rich through despoiling them and which are not ready to give to others the rights which they themselves enjoy are, in Professor Sarkar's opinion, ideal empires ! They must be viewed to contain self-criticism and reform within themselves ! We confess flattery can go no further. *Our learned friend is indeed opposed to sycophancy—sycophancy designed to please the Vice-Chancellor of a bankrupt University. But that kind of sycophancy which is the royal road to success in India is ever palatable to him. We shall not be surprised if he is called upon sooner or later to fill up a higher post.*

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[1] *Modern Review* for October, 1921.

Tall talks of 'independence and moral courage' are ever on the lips of our learned friend. But he is ready to violate dictates of morality when it serves his own purpose. He cites the following account of an M.A. candidate standing first in English through favouritism. "An M.A. candidate secures the 4th or 5th place in the six common-papers, *i. e.*, in the fair and open competition. His academic career was not of exceptional brilliancy, as he did not secure the first place in the B.A. Honours, but had come out nearer the bottom than the top in an unusually lengthened first-class Honours (peculiar to that year). Now, in the remaining part of his M.A. course, *viz.*, the individual thesis which counts as two papers, his special examiners give him 96 per cent. of marks and bring him up to the first place in the general result, because the examiners of the four top-most boys' special papers had not been so astoundingly liberal to them. It is immaterial for our argument that the two examiners of this favoured boy were also his private coaches ; etc." We think that Prof. Sarkar has in his mind the case of Babu Ramaprasad Mukerjee—the eldest son of Sir Asutosh Mukerjee. On inquiry we learn that this is a glaring lie. It is not a fact that Babu Ramaprasad Mukerjee stood first because special examiners—his coaches—gave him 96 per cent. of marks in the thesis submitted by him. He also stood first in the six common papers taken together, standing first in seven out of the twelve half-papers. The total marks obtained by him in the six common papers were 413. The next four boys in those very papers taken together got 389, 382, 367 and 353 respectively. Further, the thesis submitted by Babu Ramaprasad Mukerjee was examined by three examiners including Mr. M. Ghosh of the Presidency College, and none of these gentlemen, to our information, served as the coach of this favoured boy, as insinuated by Professor Sarkar. Nor did these examiners award 96 per cent. of the marks on the thesis. In these circumstances, where is the basis for the statement that he stood first because of the special favouritism of his coaches ? Professor Sarkar further hints that because Babu Ramaprasad Mukerjee stood seventh in the B.A. Honours, he could not possibly stand first in the M.A. Is this contention sound and tenable ? Manifestly not. The University Calendars belie it. On reference to the Calendars of those palmy days when the University used to produce *genuine coins* like Professor Sarkar and others and when there was absence of all "sham," we find that Babu Ramananda Chatterjee stood first in the B.A. Honours (English) and Babu Hirendranath Datta stood fourth in the same subject. But their places were reversed in the M.A. in English. Babu Jagadish Chandra Sen stood tenth in the B.A. Honours (English), but stood first in the M.A. Babu Hem Chandra De stood seventh in the B.A. Honours in Philosophy, but stood second in the M.A. in the same subject. The late Babu Jatindra Chandra Guha who could not even secure Honours in the B.A., stood second in the first-class in the M.A. in English. I need not multiply instances, but as the learned professor has made so misleading a statement, he may well be reminded of an interesting biographical fact. In the B.A. examination, he himself was placed second in the *second class* in the English Honours list, and he got only the second place in the first class in the History Honours list—his rival, the late Nandalal Mookerjee, beating him in every subject and getting the first place in the Honours lists in English, History and Philosophy. Are we then to say that Mr. Sarkar should not have got the first place in the first class in English at the M.A. Examination? We notice these facts, because even men of learning, when they are prompted by unworthy motives, lose all sense of honour and decency.

Our learned friend is no respecter of persons and is always inspired by a 'fearless love of truth, regardless of consequences.' So he does not hesitate to ascribe unworthy motives even to such scholars as Dr. Howells, Principal Heramba Chandra Maitra, and Dr. H. C. Mookerjee in connection with their compilation of the Bible Selections, published by the Calcutta University. To quote his own words, "*The introduction, the only literary contribution, has been mostly pirated from known commentaries; the body of the book consists of clippings made with a pair of scissors and three men were required for the purpose.*"

We have had not the pleasure of going minutely through the Bible Selections and we do not feel fully competent to pass an opinion on the matter. But if the taking of passages from the works of other authors without acknowledgment is piracy, we are afraid, our learned friend is equally guilty of the same charge. To-day we shall cite only one instance. Prof. Jadunath Sarkar presided over the History branch of the Bangiya Sahitya Sammilani held at Burdwan, 1321 (B. E.). In his memorable address he said as follows:

" কিন্তু ইতিহাস বলিতে আমরা সাধারণতঃ যাহা বুঝি তাহার আরম্ভ প্রামাণিক ঘটনা হইতে। প্রমাণের জন্য সাক্ষ্য সংগ্রহ ও বিচার করা ঐতিহাসিকের সর্ব্বপ্রথম কার্য্য। এই মূল মন্ত্রটি এত সহজ, আপনারা প্রত্যহ আদালতে, সাংসারিক কাজে, ইহার এত ব্যবহার করেন, যে ইহার ব্যাখ্যা করা অনাবশ্যক বোধ হইতে পারে। কিন্তু দুঃখের বিষয় আমাদের নানাপ্রদেশে লিখিত আধুনিক ইতিহাস ও ঐতিহাসিক প্রবন্ধ পড়িয়া মনে হয় যে ইতিহাসের ক্ষেত্রে এ নিয়ম আমরা এখনও স্বীকার করি নাই।

সাক্ষ্য পাইলেই আপনারা তিনটী প্রশ্ন করেন,—(১) সর্ব্বাগ্রে কে এজাহার দিয়াছে? সেই first information এর নকলটা সংগ্রহ হইয়াছে ত? (২) এই

সাক্ষীটি ঘটনা জানিবার কি সুযোগ পাইয়াছিল ? এ কি স্বচক্ষে দেখিয়াছে, না পরের কথা শুনিয়া বলিতেছে ? (৩) মোকর্দ্দমার কোন পক্ষের সহিত ইহার স্বার্থ জড়িত আছে কি ?"

These very points on historical evidence have been stated by Rev. H. B. George in his work on Historical Evidence (1909). We give below a quotation from the work:

"The value of all human testimony, whether the subject with which it deals, whatever the purpose for which it is cited, depends on three independent considerations:

(1) What were the witness's means of knowing the truth as to the matter in question?

(2) What is his capacity for observing fully and accurately or judging correctly?

(3) How far is he to be trusted to tell the truth without bias?"[1]

Though the Professor has attempted to alter the language, yet the three points are essentially the same. Any impartial critic cannot but come to the same conclusion. Is it scholarship or plagiarism? If the latter, one may justly ask, why is he so very eager to find out the faults of others? Well may one say, friend, first cast out the beam of your own eye and then pull out the mote of your brother's eye.

It is a pity that Professor Sarkar does not see his own faults. There was a time when he left no stone unturned to eulogise Sir Asutosh Mukerjee. What did he not do to please Sir Asutosh when the latter was called upon to preside over the sitting of the Sahitya Sammilani of Bengal held at Patna? These incidents are still fresh in the memories of many veteran literary men who attended the Sammilani. It was, we hear, on the powerful advocacy of Sir Asutosh that Mr. Sarkar obtained a Chair in the Hindu University, Benares, which he had to leave for good, *on account of some good traits* in his character. Sir Asutosh was a very great man in his eyes until his connexion with the Calcutta University ceased in 1918. Now, how did that connexion come to an end? He himself relates it though in a very mutilated form. He says: "I know of a case in which an *independent* external M. A. examiner had pointed out in his report that the answers showed that the University lecturers had not introduced the best authorities on the subject to their students and that they were still teaching heresies which were exploded half a century ago in Europe. Result: these very University lecturers who formed the board for selecting examiners remarked (Boss, J, concurring): " Why should we give anything to Mr. X.? He has criticised us. This gentleman has been excluded from the list of examiners and the Calcutta University ostrich has been hiding its head in its sand heap with unperturbed self-complacency ever since." As Prof. Sarkar suppresses many points, we append below the correct version of the incident. In the M.A. Examination in History for 1918, Prof. Sarkar was appointed to examine one-half of the paper on History of Islam in India and the other half was examined by Dr. Rushbrook Williams—the then Professor of History in the University of Allahabad. In Prof. Sarkar's half though a number of students obtained first-class marks, he complained of their educational deficiency. He observed that the students were not familiar with such up-to-date works as V. A. Smith's Akbar. He even went the length of criticising the teaching of Islamic History in the Calcutta University. But Prof. Rushbrook Williams, who examined the other half, was favourably impressed by the answers of the candidates and he spoke highly of their intellectual capacity. In these circumstances, the teachers very naturally took exception to his further appointment as an external examiner and his connexion with the University ceased. This is the plain unvarnished version of the whole incident. We see nothing unjustifiable in the procedure of the University. We would ask our learned friend to try this game in any other University of the world and see what happens.

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[1] George, Historical Evidence, 1909, p. 31.

Since this occurrence the learned Professor has always been guided by a 'fearless love of truth' particularly in connexion with the Calcutta University. We hope that the Editor of the *Leading Monthly of India* will note this conversion of a Paul into a Saul. As a matter of fact we know that many *Pauls* have become *Sauls* when expedient. These men have combined and set up "a corrupt jobbing clique, like the Tammany Hall of New York" in Cornwallis Street, just near the Sadharan Brahmo Samaj[1] on the false plea of "reform." They are constantly waging war against their *Alma Mater* and are sparing almost none connected with the University. In their opinion, the teachers of the Calcutta University are "sycophants and sneaks," are mere "translators and compilers," and *they* alone are true researchers, are independent men. They have gone the length of even attacking the Venerable Grand Old Man of the University—I mean Dr. Stephen. This erudite Professor, according to their estimate, simply writes down lecture-notes on three black boards and does nothing else. Bengal, beware of these critics.

ABHAYAKUMAR GUHA

(*To be continued*)

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[1] For the history of the conversion of the *President* of the "clique" the readers will do well to peruse some issues of "মানসী ও মর্ম্মবাণী" to which we shall hereafter refer.

QUEST OF BEAUTY

I.—Aspiration.

I sit me down by Beauty's stream,
I dare not touch the water,
The day is bleak and bitter cold,
Around rain's cold, soft patter.
I rise resolved to plunge in stream,
My courage shivers cold,
I land-ward look, my courage comes,
I re-resolve, I'm bold.
In doubt my courage flutters fast,
I know not what to think ;
Misfortune's sprinkled on my face,
I care not if I sink.
I jump—I plunge—the die is cast,
All doubt, all fear for ever past.

II.—Resolution.

Lend ear, ye faithful sons of truth,
Record my solemn vow,
I'll lose my life in Beauty's sea,
And never turn back now.
Unseen, in silence Beauty rapes
What I have known as me,
A sweetness steals o'er all that's left,
Serene in agony.

By liquid light on Beauty's sea
    Without is made Within,
Without, Within in Beauty merged ;
    To think of aught is sin.

III.—Conservation.

I fear I'm wrecked on Beauty's shore,
    My lines have snapt,
    My crazy craft
Is helpless, helmless, 'reft of oar.
The wind, called mind, is clean distraught;
    Its rise, its fall
    Are madness all,
Obsessed by devils, vainly fought.
I've sailed by words from somewhere heard.
    Whene'er it thunder'd,
    I only blunder'd
And whirl'd as Passion-storm bestirr'd.
The horrid, ugly thing called life
    The shore enshrouds
    In deep, black clouds,
Unpierced by Lightning's thinnest knife.
    The mind dies to see her,
    The eye dies to flee her,
Take her or leave her—so rages the strife.

IV.—Consummation.

O take my father's richest store,
Take diamonds great and pearls galore,

Gems, red and green,
—How sweet their sheen !
Take silver cold
Bold, bright gold,
Take all—take all that you need more.
But buy me Beauty—Beauty find,
Let be all else but light to Blind,
Seek dark and glow,
Above, below,
Scour sky and earth,
Seek death and birth,
Make Beauty 'lone the light of mind.
Saith Beauty from behind life's veil :—
" Go back, thy labours naught avail.
Ah ! Naught thy gain,
Thy search is vain,
Nor main nor wind
Can Beauty find,
Love—love alone can Beauty hail.
Life's glitter leave, let love but cry ;
Thy soul is Beauty, thy soul am I."

V.—Valediction.

" O Beauty's bud has blossom'd sweet,"
With steps so timid and discreet
Her fragrance whispers in my ear.
Her tint so saddening,
Her scent so maddening,
Her voice so gladdening,

Her partless all intensely dear.
Love's silent token,
Dearness unbroken,
Dearness unspoken,
Dearness that's dearness placid and clear.

The wine from Beauty's bud distill'd
Gives all this life in death ;
O bless th' unseen Distilling Hand
Whence life, untied to breath.

MOHINIMOHAN CHATTERJI

THE UNIVERSITY OF PADUA

SEVENTH CENTENARY CELEBRATIONS

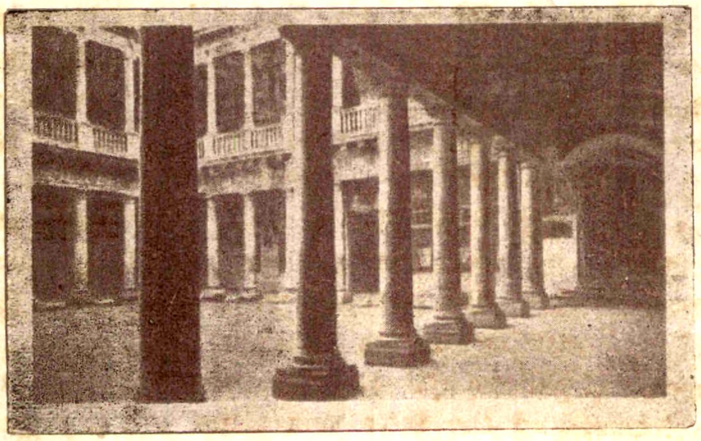
INDIAN DELEGATES FROM CALCUTTA

We reproduce here an account of the University of Padua which was published in the Times (Educational Supplement) on the 20th May last.

"This week the University of Padua celebrated its seventh centenary. On Monday the King of Italy went to Padua, and on Monday, Tuesday and Wednesday, official celebrations took place, which have been kept up unofficially for the rest of the week by the students.

The University of Padua was established in 1222, as the outcome of a migration, in consequence of quarrels between Town and Gown, from the more ancient University of Bologna. Bologna began the higher teaching by being a school of law, when the law books brought from Ravenna were interpreted in the schools of Bologna. It is probable that the study of law at Padua went back earlier than the arrival of the Bolognese contingent in 1222. The statutes of the first corporation or 'university,' to use the technical term of the jurists, date from 1331 and are largely modelled on the ancient statutes of the "Universitas juristarum" of Bologna. The similar "university" (or corporation) of the arts students came later, and included the medical, philosophical, and theological students, though it was the law students who claimed priority. But in the intervening centuries Padua has brilliantly sustained an international eminence in medicine, science, and philosophy. English students have always found a welcome, and the inter-connexions of our travellers and students suggest particularly warm and hearty greetings from our country to the whole body of the University of Padua,

Padova—R. Università.



Padova—Cortile R. Università.

professors and students, in the festive gatherings in that city to celebrate the completion of the seventh centenary since the foundation. Every English school boy surely remembers how in Shakespeare's Merchant of Venice mercy and justice received their emphatic representation from the Paduan Bellario, the learned doctor, and his nominee advocate Balthazar, whom Portia impersonated. Shakespeare laid the first scene of Act I of *The Taming of the Shrew* at Padua. Lucentio's talk, in the presence of his "man" Tranio, directs English audiences and readers of Shakespeare to the thought of Padua.

> Tranio, since for the great desire I had
> To see fair Padua, nursery of arts . . .
> Here let us breathe and haply institute
> A course of learning and ingenious studies.

Tranio expresses himself glad of Lucentio's resolve "to suck the sweets of sweet philosophy," but pleads with his master:—

> Let's be no stoics nor no stocks, I pray:
> Or so devote to Aristotle's checks
> As Ovid be an outcast quite abjured:
> Balk logic with acquaintance that you have
> And practice rhetoric in your common talk;
> Music and poesy use to quicken you;
> The mathematics and the metaphysics,
> Fall to them as you find your stomach serves you;
> No profit grows where is no pleasure ta'en;
> In brief, sir, study what you most affect.

Leeds University concluded its congratulatory epistle with the last two lines.

Of all the great sons of the University of Padua there is no one who goes more to the heart of education and schoolmasters than Vittorino da Feltre. Great foreign travelling noblemen, and even distinguished eager scholars, found their way to Padua and made it the richer in the general tradition. But Vittorino sprang from Lombardy itself; he was a poor youth, born near the Asolo. At the age of 18, in 1395, nearly 200 years before the time of Shakespeare's plays, Vittorino entered Padua, which by that time almost rivalled Bologna itself both in its law and the development of literary studies. In 1399 Francis Carrara, with ducal magnificence, provided the University of Padua with the building for which it had waited so long, and assigned the ox-tax and wagon-tax, to provide salaries for University teachers. Petrarch, born at Arqua, near Padua, dying in 1379, had left in the city of Padua his own library of Manuscripts, the finest collection made by any scholar since the ages of antiquity; and the spirit of Petrarch's desire for scholarship was the proud inheritance of Paduan scholars. For 20 years Vittorino remained at Padua, both as a student first, and afterwards as a teacher of junior students. After taking his degree he refused to wear the ring and gown of academic rank, and continued to attend all lectures which seemed likely to add to his knowledge. He only left Padua to go to Mantua, where, in the Casa Giocosa, he established a humanist school, delighting in Livy, Virgil, and all the Latinists, but adding the Greeks, and suffusing all instruction with a grace, nobility, modesty and piety—with respect for courtesy and prowess of body—which made his school the most attractive in the Italy of the Renascence times, and in its aims one of the greatest for all times.

From the history of the University of Padua as a centre, up to the seventeenth century, might be written a history of the progress of the literature and science of all Europe. For Padua was, in certain ways, an international clearing-house for intellectual endeavour and achievement. Erasmus, in his famous three years' sojourn in Italy, found Padua one of the most important and stimulating of University cities. He broke into his prolonged stay at Venice (where he was in the midst of the celebrated group of the Neo-Academy, brought together by Aldus Manutius) to go, for the winter of 1508, to Padua, which was, as M. Renan said, the Quartier Latin of Venice, for the Republic of Venice proudly helped and subsidized the University of Padua and its professors, after Padua had become subject to its rule in 1405.

Padua began by specializing in law, but later its study of medicine became even more conspicuous. In course of time the University of Padua did not hesitate to associate itself with advocates of Averroism. Then equally it dared to encourage antagonists of that system. When Pietro Pomponazzi (born a few years before Erasmus) became professor of philosophy at Padua, a new era was opened for the philosophical school of Padua. As Chancellor Christie said:—

'Living thought took the place of mere verbal discussion; ideas took the place of words......Speculations not less daring than those of the 18th century were openly and freely propounded,...........'

While neither neglecting nor despising Averrhoes, Pomponazzi pursued a quite independent line. Pomponazzi and Achillini (an Averroist) had a battle royal disputation in the great Palazzo della Ragione, and readers of Mr. John Owens' "Skeptics of the Italian Renaissance" will remember his graphic description of the contest. Padua thus showed itself a pioneer in the direction of freethought and open-mindedness. This same spirit, later transmuted into tolerance of speculative opinion, attracted an exceptional number of students.

Of jurists Padua prides herself on such names as Socino, Panciroli, and Manochi, and the University became almost an international school of common law. On the arts side there were the famous names of Robortello, Bonamico, and Sigonio. But it is the name of Galileo Galilei which holds us spellbound, when we peruse the long list of distinguished teachers at Padua. Born at Pisa in 1564, also the year of Shakespeare's birth, he outlived Shakespeare by twenty-six years. At the age of 12 years Galileo was sent to the monastery of Vallombrosa. Mechanical in tastes from boyhood, musical, of good humanist education, he became a medical student in the University of Pisa under Andrea Cesalpino, the far known physician and botanist, and was known by the nickname of "The Wrangler," ready to question the views of Aristotle, Plato, or St. Thomas Aquinas. He became mathematical lecturer in the University of Padua, appointed by the Venetian authorities, a post which he occupied from 1592 to 1610. There he wrote treatise after treatise, made invention after invention, and gained high reputation as a teacher. At his house in the Via Vignali, now the Via Galileo, he received sometimes as many as 20 private boarders, Italians and foreigners. Mr. Fahie, the writer of "Galileo: His Life and Work," says that the great mathematician-astronomer made no profit, owing to the generosity of his catering. He translates from Professor Antonio Favoro, the great Paduan authority on everything concerning Galileo, and the director of the Italian National edition of Galileo's works, the following description :

'We seem to see Galileo now under the trellis of vines cared for by his own hands, surrounded by loving friends and pupils, and discoursing with them on divine philosophy ; or presiding at an evening meal in summer, spread under the grateful shade of trees or arbour ; or playing the lute, as he was always ready to do in convivial meetings.'

Here, in this amateur gardener and conversationalist, was the pioneer of the telescope, his instrument being first used in public from the top of the Venetian Campanile of San Marco, and the most distant object rendered visible being the Church of Santa Giustina, in Padua. It is instructive to note that the keen interpreter of Aristotle, who came from Ferrara to the University of Padua, a colleague of Galileo, Cesare Cremonino, refused to believe in these telescopic discoveries, in spite of facts. Yet, when Lord Herbert of Cherbury was on the Grand Tour, it is "particularly Cremonino," and not Galileo, he mentions amongst the "learned readers" whom he went to hear in the University of Padua. Such is the difference between comtemporary and later fame.

Richard Lassels says, in his account of travels in Italy, as tutor to young noblemen: "Padua is famous for the study of physic," and in all countries, the names of the Paduan professors of anatomy were well-known, Vesalius the great pioneer of modern anatomy, and Fallopius, followed by Fabrizio d'Acquapendente. In 1598 the English William Harvey went to Padua and stayed there about four years under this distinguished anatomist. Harvey became a Conciliarius (member of council) of the English "nation" in the "Juristarum universitas" in 1600. Mr. D'Arcy Power, in his delightful Life of Harvey, mentions that the greater part of the work of the university was done between 6 and 8 in the morning, and some of the lectures were at daybreak, though Fabrizio lectured at 9 A.M., in the quaint old anatomical theatre, presented by himself, which is still one of the notable historic features of Padua.

The University of Padua has had glorious periods in the past, and in the fights of some of its professors for progressive ideas and freedom of thought has acted with conspicuous nobility. It had its season of decadence under Austrian domination, but in 1866, when Venetia was restored to the mother country, the university quickly retrieved the sense of strength and courage in the remembrance of ancient traditions. To-day, Padua is growing and expanding in many directions. New buildings are rising up in response to modern demands: new institutes of hygiene, mineralogy, and anthropology, and prospective further accommodation for the sciences, theoretical and applied. With all the resources of Venice at hand-libraries, archives, institution of literature, and the arts—Padua has a twofold guarantee for its future, and the high promise of a still richer and more varied development than was ever dreamed of in the past."

In connection with the celebrations of the seventh centenary, the Senate of the Padua University invited the University of Calcutta to nominate delegates to represent this University during the ceremonies to be held at Padua to solemnize the foundation of their University.

On the 3rd March the Hon'ble the Vice-Chancellor and Syndicate nominated the following gentlemen to represent this University:

1. Prof. Phanindranath Ghosh, M.A., Ph.D.,
   Sir Rashbehary Ghosh Profesor of Applied Physics.
2. Prof. Sunitikumar Chatterjee, M.A., D.Litt.,
   Guruprasad Singh Professor of Indian Linguistics and Phonetics.
3. D. N. Mallik, Esq., B.A., Sc.D., F.R.S.E.,
   University Lecturer in Physics and Applied Mathematics.

Prof. Ghosh was in Berlin; Prof. Chatterjee was in Paris. Dr. Mallik was in London; all of them were present at the celebrations.

Prof. Chatterjee has drawn up an account which will no doubt be perused by our readers with considerable interest.

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REPORT ON

THE PADUA UNIVERSITY CENTENARY CELEBRATIONS

FROM PROFESSOR SUNITIKUMAR CHATTERJEE, ONE OF THE DELEGATES FROM THE UNIVERSITY OF CALCUTTA

I went from Paris (where I was staying since August, 1921) to London for one week in April-May and there I saw Dr. D. N. Mallik. The detailed programme of the Centenary Celebrations, which was sent by the University of Padua to the delegates who had expressed their desire to attend, mentioned that representatives of foreign Universities who would speak during the solemn ceremony were to speak in their own languages. We decided that an address from an Indian delegation was to be in Sanskrit: more so, when the letter of invitation to the Indian Universities from Padua was in that language. I had prepared a brief speech in English, which was regarded as suitable for the occasion by Dr. Mallik. In it, there were some words of felicitation on behalf of our Indian Universities in general, and of the University of Calcutta in particular, to the University of Padua on having attained the seven hundredth year of her existence, which were followed by thanks for the great honour done to India by one of the oldest Universities of Europe by asking the Indian Universities to send delegates on such a unique occasion. It was also mentioned that our Indian Universities were young, but theirs was a rebirth. The ancient learning of India was still being conserved along traditional lines in our Sanskrit schools, while the glorious Universities of ancient India, like those of Taxila and Nalanda, held the torch of learning not only for India but also for the greater part of Asia, even as Padua, Paris and Oxford did in Europe in the early centuries of their life. The modern Indian Universities inherited the ancient learning which they sought to perpetuate and propagate along modern lines and at the same time they accepted modern sciences and modern methods from the West, which they brought to the Indian youth. A wish was expressed that an occasion like the present one, when the Universities of India were asked to meet those of the West and of the other parts of the world by sending representatives to congratulate one of the most famous seats of learning on her 700th birthday, might be productive of closer union between the East and the West and of mutual help and guidance; and the address ended with a quotation in Sanskrit, a prayer from the *Upanishads.* Not being a facile writer of Sanskrit myself, I sent from London my draft speech to Mr. Parasuram Lakshman Vaidya at Brussels to be translated by him into Sanskrit. Mr. Vaidya is Professor of Sanskrit in the Fergusson College, Poona, and a Government of India Sanskrit Scholar in Europe, with a deep and sound knowledge of the language, which he writes with great elegance; he is an M.A. in Pali of the Calcutta University; and he very kindly made an adaptation of my English address, which I received in Paris. Feeling that it might be necessary to present it to the University at Padua, I wrote it out, in Chinese ink, on hand-made paper, in the form of a Northern Indian Manuscript of four pages, in Devanagari character, with illuminations in scarlet. This served its purpose later. I append a copy of the address herewith.

Dr. Mallik joined me in Paris, and we journeyed together, arriving at Padua on the night of May 13. We were expected, and were taken by student volunteers to the hotel arranged for us. Professor P. N. Ghosh had already arrived from Berlin. On the 14th in the morning there was an International Exhibition of Scientific Instruments in the city, to which the delegates were taken, and this exhibition was much appreciated by Dr. Mallik and Dr. Ghosh. At 2 P.M. the same day, there was a meeting in the *Aula Magna,* the beautiful hall of the University, brilliant with the scutcheons of past masters and students. After a preliminary function, the names of delegates from the different Universities and learned bodies were read out. Over forty countries were represented. We three from Calcutta were the only representatives from India. After the reading of the names, came the question of selecting the speakers from among the delegates for the great function of the next day. Only half an hour in the programme could be set apart for speeches from delegates, and as not more than ten speakers could be selected, there would be only three minutes for each speaker. The business of selecting the speakers was a ticklish one. Through the suggestion of Professor Ambrogio Ballini, Professor of Sanskrit in the University and Secretary of the Centenary Celebration Committee, it was agreed to relegate the various countries into several groups, with one speaker for each group. Accordingly, the following groups were formed: (1) Asia (India and China,—there were two delegates representing China); (2) Northern and East Central Europe (Holland, Denmark, Norway, Sweden, Finland, Esthonia, Lettonia, Lithuania, Hungary); (3) the Latin countries (France, Belgium, Spain, Portugal, Roumania, Peru, Bolivia, Argentina, Chile), as well as Greece and Ireland; (4) the Slav nations (Russia, Poland, Czecho-Slovakia, Yugoslavia, Bulgaria); (5) Germany; (6) the United States of America; (7) Great Britain, Canada, New Zealand, Australia, South Africa; and (8) the Universities of Italy. The order of speakers was settled by lottery, and Asia happened to come first. It was settled that India was to represent Asia, and as my name was given by my colleagues to read the Sanskrit address, "il Professore Ciatergi, indiano, dell' Università di Calcutta" was to speak first among the delegates. Professor Archibald Garred of Oxford was selected to represent the English-speaking nations in the British Empire. An important item in the programme of the solemn ceremony was thus fixed.

At 4 o'clock, there was a symposium in the Royal Academy of Sciences on "Scientific method and speculative science: method and finality of these researches: their connection with Philosophy." We went there. Most of the speakers read papers in Italian. The same evening there was a reception of the delegates at the Casino Pedrocchi.

The next day, Monday the 15th May, was the day of the solemn celebration of the Centenary. His Majesty the King of Italy came to Padua in the morning to attend the function.

The whole city was *en fête*; with the people of the city apparently the University formed a part of their civic life, and there was the most cordial co-operation on the part of the citizens in the centenary of their glorious University. The students had their share too,—they were seen everywhere in the characteristic caps with special colours for the various faculties, and they celebrated the occasion by *goliardi* or fancy dress processions and songs, and by a general merriment, which formed a very novel and pleasing feature of the entire function and was most appreciated by the people. Students from various towns and Universities of Italy, like Venice, Trieste, Bologna, Pisa, Verona, Florence, Naples came as delegates, with their goliardic parties. The king arrived at 9-30, and was greeted by an enthusiastic people, who lined the streets in deep crowds. At 1 o'clock we went to the University and robed ourselves, and joined the procession of delegates and University men, which started from the University building for the *Salone della Ragione*, close by, which is a vast hall, one of the largest of its kind, dating from 1172. The streets were lined by people to witness the procession, and the foreign delegates were received with cheers everywhere. The ceremony commenced at the *Salone* at about 2-30 in the presence of the King of Italy. A general estimate places the number of people who were present at 5,000. First, there was the speech from the Rector of the University, Dr. Lucatello; then an address from the Syndics of Padua and another address from Senator Professor Nino Tamassia. This was followed by a song to the *Alma Mater* sung by the students in chorus. After that came the allocutions of the foreign delegates. My name was called first by Professor Ballini, according to the arrangement made on the previous day. I said first in English: " On behalf of the Universities of India, I have the honour to offer in Sanskrit our most cordial felicitations to the Royal University of Padua, on this solemn occasion." Then addressing the king as श्रीमन्महाराजाधिराज, and the audience as समवेतासभासदः I read portions of the manuscript I had prepared. Of course, it was not understood by any one, except the few Sanskritists who happened to be present—like Prof. Ballini, Prof. Maurice Bloomfield from America, and a few others, probably,—but I trust the intonation of the language of the Gods did not fail to create an impression in that vast hall, and Sanskrit is the symbol of our Indian culture and learning, of our ancient life and thought, and it was fitting that an address from an Indian delegate was in Sanskrit, in an assembly of learned men from the whole world where each was to express himself in his own speech. The other delegates followed. The representative from the United States spoke in Italian, and he was loudly cheered. Prof. Lingi Luzzatti of Rome, a venerable personality, then spoke in the name of all the Italian Universities. After that, members of the various delegations filed before the Rector and presented their address to Padua: and Dr. Mallik, as the senior representative from India, presented the Sanskrit address on behalf of the delegation from Calcutta. The celebration was brought to a close by an address from His Excellency the Minister of Public Instruction. The entire proceedings were punctuated by vivid demonstrations among the students and others in favour of the king, which testified to his great popularity with his people.

In the afternoon of the same day, there was another reception at the Botanical Gardens, which was, like the previous reception, an excellent occasion for people from different parts to come in touch with each other. The king was present for a short time. In the evening the foreign delegates witnessed the performance of the opera *Mephistopheles* by Arrogo Boito, a Patavian composer, at the Theatre Verdi. The king was also present during part of the performance and he left Padua the same night.

On the 16th, in the morning, there were a series of functions in the *Aula Magna* of the University, including the commemoration of Morgagui, the great anatomist of the 18th century, an address from Professor A. Bonome, and conferment of doctorates *honoris causa* to representatives from various Universities. *We were glad to find that our University was honoured by Padua, by the conferment of a doctorate on Professor P. N. Ghosh.* At midday, the delegates were taken by special electric train to Stra, in the outskirts of the city, to the park of the Hydrotechnic Institute, a magnificent building, formerly a royal palace. There we were treated to lunch under a glorious avenue of trees whose branches formed an arcade over our head, and we were seated close to Professor Ballini and his Sanskrit students with whom we thus had an occasion to come in closer touch. After lunch, we spent some time in the grounds, making new acquaintances and utilising the opportunity offered to talk about our Indian Universities, about education in India, about the work of the Calcutta University, and other topics, to students and others who were interested. We returned to Padua in the afternoon, to witness a grand procession of *goliardi*, which was quite a successful historical pageant, conducted entirely by the students and showed how very much alive was the historic sense among Italian students. In the evening, there was a banquet given by the Municipality of Padua to the delegates. There were after-dinner speeches from some of the delegates, thanking the University and the city of Padua for their hospitality. As it was already late, and there was a fancy dress ball at the Countess Papafava's to which many of the delegates were going, no one could speak for India, although intimation was sent. We had to express our thanks in private to Professor Ballini, for the cordial reception we had received from everybody in Padua,—the University authorities, the students, and the public in general as well.

The next day, on the 17th, the delegates left for Venice where they visited the superior School of Commerce, and the Exhibition of International Art. In the afternoon there was a reception by the Municipality of Venice at the Ducal Palace. With this ceremony the celebrations of the Seventh Centenary of the University of Padua were over. Dr. Mallik left Venice for Verona the same evening, and Dr. Ghosh and myself stayed on in Venice.

Our sojourn at Padua as delegates was an extremely happy experience. We found the Italian Professors and students, and the Italian people extremely kind and sympathetic. Fortunately for Dr. Ghosh and myself, our stay in Paris has given us a tolerable acquaintance with French, and French is the foreign language most commonly understood in Italy. We were thus enabled to talk with some freedom with people whom we met at Padua. The more intellectual among the students we found to be keen admirers of Rabindranath and they were eager to know something about the intellectual movement in India. We could thus talk about our Indian Universities and their work and specially our own University and its contribution to Science and in Letters, about student life in India, about our various systems of education, and similar topics. Everywhere we were received with great kindness, and the enthusiasm of the students were really great,—as "delegati indiani dell' Università di Calcutta, che parlano sanscrito," we had to give autographs, in *roman* and *devanagri*, to scores of students. That there is some intellectual life in our country has been partially demonstrated before the representatives from Universities and learned bodies all over the world assembled at Padua, by at least one University in India by sending delegates and Indian delegates too. Dr. Lucatello, the Rector, and Professor Ballini were most courteous, and Professor Ballini has a great enthusiasm for Sanskrit and Indology. We also made acquaintances with representatives from some of the learned bodies of different countries of Europe. We trust that there will be established a bond of sympathy and co-operation between the intellectual life of Italy and India, through this contact between the Universities of Padua and Calcutta. Since the middle of the last century, when through the patronage of an Italian king, Charles Albert of Sardinia, Gorresio published his splendid edition of the Ramayana, there has been a succession of brilliant Sanskritists and Indologists in Italy, who have done important work in the field. I suggest that our University presents a complete set of our publications, literary and scientific, to the University of Padua; Padua has been the first among the continental universities to recognise in a formal manner the position of our Indian Universities in the intellectual world, and Padua will be glad to help us in those subjects in which she has excelled: in scientific and technical subjects like sericulture, for instance. I believe that Dr. Ghosh has taken notes on the matter. I trust that at least by correspondence and co-operation between our Professors and those of Padua and by exchange of papers and works, the link so happily inaugurated will grow stronger and stronger between the two Universities.

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Text of **Sanskrit Address** presented to the University of Padua on the occasion of the Seventh Centenary.

(Padua—Lat. Patavium, Sanskritised as पातव्यपुरी) ।

ॐ स्वस्तिः ॥ श्रीः ॥ रोमकीय-पातव्यपुरीस्थ-विश्वविद्यालयस्य सप्तशत सांवत्सरिक महोत्सवार्थं भारतीय सर्व-विश्वविद्यालयैः प्रेषिता मङ्गलाशिषः सौहार्द-सभाजनानि च ॥

नमः समस्तविद्यानां प्रसूतिं शारदां शिवाम् ।
यत्पादाम्भोज मधुभिः प्लावितं भुवनत्रयम् ॥

सभासदः !

पातव्यनगरीस्थ विश्वविद्यालयस्य सप्तशतसांवत्सरिकवर्धापनमहोत्सवे भारतीय विश्वविद्यालयस्य विद्वत्परिषदः स्वप्रतिनिधिमुखेन स सौहार्दं च संप्रमोदं चामुं सभाजयन्ति, शाश्वतजीवितां चास्य समभिलष्यंति। महान् खल्वयं संमानो

भारतीयानां यदेते वयं अत्रोपनिमन्त्रिताः पाश्चात्यपण्डितानां परिषदि । बहामस्वकार्तणं पारिषदात् पातव्यविश्वविद्यालयस्य ॥

नूनमिदं विद्यामन्दिरं योरोपीय भूविभागे प्राचीनतरम् । यत्सत्यमधुनातनानि भारतीय विश्वविद्यालयानि सुतरामेतदपेक्षया यवीयस्तराणि । किन्तु भारतीयानां अशक्यमेव विस्मर्तुं भगवज्जाबालि-याज्ञवल्क्य-प्रभृतानांमुपशान्तासु तपोवनभूमिषु विनेयशतसहस्रेभ्यो निगमान्तविद्यामुपदिशताम् । दुष्करं च विस्मरणं परःशतैः कुलपतिभिरधिष्ठितानामधुना स्मृतिशेषतां गतानामाश्रमोपान्तभूमिषु मन्त्रघोषैर्निनादितानां विद्यागोष्ठीवन्धानाम् । दुष्करतरश्च स्मृतिविमोषः तक्षशिला-नालन्दा-विक्रमशीला-विद्यापीठानां मैथिलीयनवद्वीपीयानां च यच्छिष्य-परम्पराः अद्यापि काशाकाश्म्यादिनगरेषु तामेव प्राचीनामध्ययनपरिपाटीम्प्रचारयन्ति । दूरे च स्मृतिविमोषोयदेकदा तक्षशिला च नालन्दा च न केवलं भारतीयानां वैनेयजनानामपितु शक-तुषार-कुच-तुरुष्क-हूण-चीन-भोट-काम्बोजादिजनानाम प्रियतमं विद्यापीठमभूताम् । यथा च पाश्चात्य भूविभागे पातव्यपुरी, पारिसनगरी, उक्षतरणा च विद्यापीठानामधिभूमिरेवमेव च पौरस्त्य भूविभागे तक्षशिलानालन्दादीनीत्यपि प्रथितमेतत् । अद्यतनानि च भारतीयविद्यापीठानि पूर्वाचार्य्येभ्यो दायमादाय नूतनेभ्यश्चाम्तकलां संगृह्य प्राचीनाश्चार्वाचीनाश्च विद्या तवीनया तरण्या शिष्येभ्यः समुपदिशन्ति, प्रथयन्ति च नवतरां जीविकामात्मनः, समुद्घोषयन्ति च सप्रमोदं———

जल्पन्तु सर्वशास्त्राणि भावानां क्षणजीविकाम् ।
वयं तु सर्वविद्यानामानक्षयं प्रशास्महे ॥

इतीमां विजयघोषणाम् ॥

समानां व आकूतिः समानां हृदयानि वः । इत्येव मुपदिशन्त्याम्नायाः । एवमेवास्मिन् पातव्यपुरीस्थ विद्यापीठस्य सप्तशतसांवत्सरिकवर्धापन महोत्सवे संगता तमेव विद्यागिरिमारुरुक्षवो नादरायणादिविनेयाः पौरस्त्याः सुक्रतुविनेयाश्च पाश्चात्या वयं मिलित्वैवं प्रार्थयामहे—

॥ सह नाववतु
सह नौ भुनक्तु
सह वीर्यं करवावहै

तेजस्वि नावधीतमस्तु
मा विद्विषावहै ॥

ॐ शान्तिः शान्तिः शान्तिः ॥ सिद्धिरस्तु, शुभंभवतु ॥

इति वङ्गेषु कालीक्षेत्र महानगरीस्थ-विश्वविद्यालयदागतानां प्रतिनिधीनाम् । मल्लिकोपनाम श्रीदेवेन्द्रनाथस्य । घोषोपनाम, श्रीफणीन्द्रनाथस्य । चट्टोपाध्योय-नाम, श्रीसुनीतिकुमार देवशर्म्मणः ॥ पातव्यनगरे उत्सववासरे ॥

* * * * *

One naturally puts the question—would all this have been possible without the creation and maintenance of the Post-Graduate Department of the University. Our University may be honoured in Padua before an assembly of representatives of the Universities of the civilised world—notwithstanding the malignity of a section of our own people!

From Far and Near

State Interference with Universities.

The Oxford Union debated on May 12th last upon the resolution that "this House would oppose any State interference with the policy of the Universities." One of the supporters of the motion "cited the case of the City Council of Birmingham, which during the war refused to continue its grant unless one of the professors was asked to leave. There could be no freedom of opinion in a University in which every appointment had to be scrutinised and approved by the Government. It was mean interference with people who knew the internal needs and problems by the people who could not be acquainted." It is interesting to note that the motion was adopted by 97 votes against 51 votes. Not much significance attaches to this vote, but that the correct position is that of the majority admits of no doubt.—(The *New India.*)

Calcutta University and Extra-mural Teaching.

The Calcutta University has been criticised for its Post-Graduate Department as a waste of money. It will be fruitful for the University if it can think of extra-mural teaching. We are glad, however, to learn that the University is now trying to develop extra-mural teaching by appointing some itinerant lecturers. And we all know how a short series of pamphlets on middle class unemployment in Bengal by Captain Petavel were appreciated by even some best brains of Europe and America. One great drawback, however, for Universities in India taking extra-mural work is that the number of professors and teachers is barely adequate for even intra-mural requirements. This points to the need of strengthening University staffs, and it cannot be avoided in India if the axiom is admitted that "the provision of a liberal education for adult students should be regarded by Universities as a normal and necessary part of their functions." But the cry of protest which is raised by a section of the public press in Bengal backed by some public men when they criticise the increase in the teaching staff of the Calcutta University is unfortunate. This brings clearly to light that public opinion is not sufficiently well educated in Bengal about the problem of adult education. Instead of complaining that the Post-Graduate department is a top-heavy administration doomed to failure, we think more fruitful purpose could be served if public men in Bengal press for extra-mural work on the part of the University.—(The *Behar Herald.*)

Metropolitan and the Educational Problem.

The Bishop of Calcutta, writing in the Diocesan magazine with reference to a deficit of Rs. 10,000 on the working of the Church Education League, asks if the Government grants could not be increased. In other countries, he says, the State shoulders the whole cost of education. If in this country it is not in a position to do that, at least it might make adequate grants-in-aid. But here another consideration comes in. Government is responsible for all its citizens and is bound to extend impartial treatment to all alike, and while in view of the greater cost of maintaining schools for Anglo-Indians, it is reasonable to expect that the actual grants made to these shall be larger than those made to Indian schools of a similar standard, it would be unreasonable to expect that Government should contribute a larger proportion of the cost of education in one class of school rather than in the other. As a matter of fact, taking India as a whole, the proportion of the cost of education borne by the State is larger in the case of an Indian than of an Anglo-Indian scholar, but taking Bengal alone he believed the difference was slight.

The real trouble, says the Bishop, is that the grants, whether to Indian or Anglo-Indian schools, are inadequate, and for this, the insufficient revenue of the country is responsible.—(The *Bombay Chronicle.*)

Viscount Haldane on Higher Education.

My recent addresses on the subject of education are part of a carefully conceived plan for the production of an enlightened democracy by the extension of higher education....

Democracy has grown up without the largeness of outlook which comes to the trained mind. People who are without any higher education are shut out from the society of the great authors, artists, musicians, and others, who can only be understood by those whom education has rendered capable of it. The effect is that the outlook of the working classes is too often materialistic and narrow, and their leisure is spent in mere amusement. Democracy is apt in its earlier stages to be unduly jealous and to try to drag things down to a level which, because it is the general level, is in danger of being too low to provide the highest talent.

The remedy appears to me to be that equality of opportunity in education should be put within the reach of every youth and maiden. Democracy will come to see that the highest work cannot be done without the highest educational preparation for it. There are those who possess the inborn initiative and capacity which can do without the ordinary educational avenues. Such people have existed at all times, and they exist to-day. They must be taken into account, and provision made for them by special promotion.

But these are nature's aristocrats, and the number of true aristocrats is always very small. ... ...

It would be a great improvement and of real political importance if the rising generation were not divided into two classes—the children of the well-to-do and the large class which has had nought beyond the limited scope of the elementary schools. ... ...

The personality of a teacher has a permeating influence, good not only for those whom he teaches, but also for those indirectly reached such as the relatives and associates of his students. A university is a place where the most valuable advantage the student has is contact with an inspiring personality. That is why nothing short of the best level among the tutors is enough for success. The professor must inspire. And if he is a great teacher he will have moulded the lives and tastes of many of his students for the rest of their existence. ... ...

An enlightened democracy is likely to be able to solve its own social problems without having recourse to crude measures of legislation. An educated democracy develops itself and does not remain inert.

From another point of view this question of a wider application of higher education is becoming more and more urgent. The United States and Germany—our most formidable commercial competitors—are steadily developing their educational systems, and are relying more and more on the trained mind.

It is Knowledge, not Capital or Labor, which develops wealth, and these countries, realising this fact, are putting education in the forefront of their activities. If we are not to fall behind we must also do this.

Events of the past few years have shown the desire for greater knowledge among the classes which hitherto have been less privileged in this respect.

It is a natural and praiseworthy desire ; it is the duty of the State to see that it is not left unfulfilled.

Abolish ignorance ; widen the outlook of the mass of the population ; extend their horizon and their understanding ; along this way lie sanity and mutual appreciation. Do for the adult in 1922 what was done for the children in 1870. It will cost very little. ... ...

The State is in an economical mood, for which there is adequate reason. But it should pause before it cuts down the amount spent on education. Money thus spent is capital invested. Its return will be found in a better educated and therefore more efficient and more satisfied population. To save outlay under this heading is a false economy, and means waste of the national capital.

With a more highly instructed, more understanding public, class jealousy will subside as a natural outcome, and a further important step will have been taken along the road of progress.—(*Sunday Express,* London.)

Ireland to teach her Children Gaelic.

Mr. Michæl Collins states that the present peace effort is the last one to be made on his side, and the only basis for peace is the recognition of the Treaty. The British are rapidly evacuating buildings and barracks, and the Provisional Government took over the Curragh Camp on Tuesday. Other barracks to be freed are Cork and the Admiralty Headquarters at Queens-town. Marlborough Hall, Glasnevin, Dublin, which was taken over by the I.R.A. when the British troops left, is now being placed again in the hands of the education authorities.

One of the first revolutionary changes in Irish education is the decision to teach the Irish language to every child in every school. For this purpose all schools, except those in Dublin and Cork, will be closed during June, July and August, and all teachers under 45 who are not qualified to teach the language will be compelled to attend special courses of study. The Ministry of Education will provide the instruction and will bear the expenses of the teachers. Secondary schools, as well as elementary, will include the teaching of Gaelic in the forefront of their curricula. Thus the State will now be responsible for the work which has hitherto been done on a smaller scale by the Gælic League, but there is still a vast portion of the adult population to be initiated into the mysteries and beauty of the Irish language, and at its Ard-Fheis (Annual Congress), to be held in Dublin in July, a new programme of campaign will be duly considered and, it is expceted, decided upon.—(The *Labour Leader.*)

Primary Education.

Sir J. D. Rees asked the Under-Secretary of State on Tuesday whether the Madras Government had passed an Act authorising local bodies to make primary education compulsory and if so, whether similar action had been taken by any other provincial legislature?

Lord Winterton's reply was in the affirmative. He said that six other provinces had passed similar Acts. But the conditions under which the local authorities may introduce compulsory education if by a two-thirds majority they desire to do so, entail adequate provision in each case for finance, school accommodation and the training of teachers.—(The *Hindu.*)

Dr. Rabindranath and Starving Intellectuals in Russia.

The poet Rabindranath Tagore has received a most urgent appeal from Professor Vinogradoff of Oxford University on behalf of the intellectuals of Russia who are threatened with destruction from starvation. It says the whole higher life of Russia is in danger and the spiritual loss to humanity will be terrible to contemplate if this starvation of the intellectuals continues, but it may be still possible to avert this ultimate disaster. Prof. Vinogradoff quotes from letters he has received as follows :—

I saw N. to-day. He was literally clad in rags. His hands were frozen and he placed them on the red-hot stove in my room without feeling the heat. Professor A. and his wife have sold their bed and bedstead for food and are awaiting death from starvation. B. is in a like condition, Kestandi, the artist, has died from starvation.

The poet Rabindranath Tagore has been asked to form a committee in India to collect subscriptions on behalf of these starving Russian intellectuals.

This will be done as soon as possible. Meanwhile donations may be sent to Rabindranath Tagore, Santiniketan, Bengal, who will personally acknowledge them and forward them to Prof. Vinogradoff at Oxford—(The *Englishman.*)

And what of the Lecturers in the University who are also starving?

Late Sir Walter Raleigh.

Sir Walter Raleigh's death, which occurred on Saturday, removes a scholar and a charming writer from English literary circles. For eighteen years Sir Walter had been Merton Professor of English Literature at Oxford University. He was born in 1861 and educated at University College, London, and King's College, Cambridge. He was formerly Professor of Modern Literature at University College, Liverpool, and Professor of English Literature at Glasgow. He was appointed to his Professorship at Oxford in 1904, and became Fellow of Merton College ten years later. His knighthood was conferred in 1911.—(*Education.*)

A Diploma of Dramatic Art.

It has been decided to institute a Diploma of Dramatic Art, to be awarded after a full-time course extending over not less than two years. The idea was first suggested in the report of the Departmental Committee on English, and the Senate's present decision is the immediate outcome of a formal request made to the University (University of London) by the Central School of Speech Training and Dramatic Art. The University Extension Board has been asked to draft the necessary regulations for the consideration of the Senate. The course is to include not only the academic side of dramatic art, phonetics, psychology, physiolgy, history of costume, dramatic literature, history of poetry, theory of voice and speech training, but practical training in dramatic delivery, spoken English, and acting.—(The *Observer*, London.)

It may not be generally known that we in the University of Calcutta instituted a diploma examination in public speaking but no college has ever ventured to undertake instruction on the subject and the University has not undertaken instruction for fear of being accused of " criminal thoughtlessness."

Vidyasagar Vani Bhaban.

The Nari Siksha Samiti or Association for the Education of Women, which has already opened several schools, has resolved to establish a home for widows for giving them general education and vocational training so that they may be able to support themselves and lead self-respecting and socially beneficent lives. The institution has been fittingly named Vidyāsāgar Vāni-Bhaban, after the great philanthropist and benefactor of widows, Pandit Iswar Chandra Vidyāsāgar. It was announced at its inaugural meeting that Srimati Harimati Datta, a Hindu lady, had already given Rs. 10,000 for the home. Other donations, promised, amounting to Rs.

8,000, were announced at the meeting. The Samiti, of which Lady Bose, wife of the great scientist, is Secretary, has already set to work. The idea is to acquire a house or a vacant plot of land to be built upon for the home.—(The *Modern Review.*)

Indian Institute of Science.

A Bangalore correspondent writes :—For the first time in the history of the Institute, an Indian, Mr. P. Ramaswami Iyer, has been placed in charge of the laboratories of the general and organic department, during the absence of Drs. Watson and Sudborough on vacation leave. When Dr. Fowler went over to England on leave for six months, Dr. Marsden was requested to be in charge of the laboratories although he was in no way connected with the Institute, but only a friend and classmate of Dr. Fowler.

The angle of vision having changed, thanks to the recent Committee of Enquiry, an Indian has now been requested to be in charge of the laboratories.—(The *Bombay Chronicle.*)

Elected Representatives Indeed!

The city fathers of Madras were to have met on Saturday to consider the recommendation of the Standing (Education) Committee for the introduction of compulsory primary education. Only seventeen councillors, however, cared to present themselves and the meeting was postponed *sine die* for the simple reason of want of quorum. There is something out of humour in that a body which within a few days took two bold steps in regard to women's franchise should manifest so little concern for the subject of education as to necessitate an adjournment without date. We are not sure if the Councillors themselves have not already felt the shame of it.—(The *Hindu.*)

Universities in Conference.

The universities of Great Britain and Ireland held their annual conference at University College, London, on Saturday, Sir Donald MacAlister (Glasgow University), who presided, said the conference was one of independent bodies, arranged for mutual consultation but with no executive authority.

Principal Irvine (St. Andrew's) said the day was long past when research in universities was left to the unaided efforts of the solitary investigator. He thought higher study and research should be controlled within each university by a board or standing committee, with wide powers, such as the recommendation of additions to the teaching staffs in the case of all departments actively engaged in research, and recommendations of promotions in these staffs and the allocation of money voted for research purposes. He spoke more particularly on behalf of the classical and philosophical subjects, which were in a very serious position to-day.

Sir Michael Sadler (Vice-Chancellor of Leeds University), speaking on the increase of residential accommodation, said that in the new universities the desire for college life had become markedly stronger during the past few years.......

Dr. L. R. Farnell (Vice-Chancellor of Oxford), opening the discussion on specialised study, said it was becoming a physical impossibility, and almost a financial impossibility, for every university to teach everything, nor was it desirable that every university should do so, but a university would destroy its own soul and starve its own spiritual life if it were to specialise to one narrow branch. The idea that we should have one university for physical science and another for the humanities would be fatal both to the humanities and to physical science. He suggested that when a university was thinking of founding a new professorship or of accepting a new endowment it should consider carefully whether that particular endowment was best placed there, and also whether the circumstances of their universities rendered that particular endowment necessary or desirable.......

Mr. Fisher, Minister for Education, who was asked to speak on the subject, said he saw the necessity for co-operation. The expense of university education had now become so great and the development of applied science in universities had now reached such a point, that it was quite impossible for the nation as a whole to advance unless there was a much higher degree of co-operation between universities in respect of the distribution of studies than had hitherto been thought necessary. So long as university studies were confined to classics, mathematics, chemistry and physics, that necessity did not arise. But now that universities were pushing out their antennæ almost in every direction, and applied science had become increasingly expensive, it was very important that we should husband our resources, and this could best be done by the universities taking counsel one with another.......—(*Education.*)

The Menace to Education.

Mr. Morgan Jones remarks in the May number of the *Socialist Review* :

How, then, do we regard the educational proposals of the Geddes Report ?

Firstly, let me say that the Committee appear to have adopted a totally wrong view of education. Indeed of all the people who might have been asked to investigate this question there were none more unfitted for the task. Men who are endowed with wealth, who have shown capacity in the industrial or commercial world, who have mastered the intricacies of high finance, who can manipulate millions as mere bagatelles, are not necessarily experts as to educational needs. Indeed, the danger is that they will bring their commercial standards to bear upon the work of the class-room. You cannot bring the standards and habit of the counting house into your school. It is entirely inappropriate. Because the job of the teacher is not to work a machine that will turn out good clerks, good book-keepers, good shop assistants, or good anything else. That does not mean that we deplore efficiency in each of those occupations. But it does mean that the main object of our training is not to be purely vocational. Our first purpose is to produce good citizens. Education is not an investment, the value of which you judge by alertness in calculation, neatness of handwriting, and such other delightful accomplishments. Education is ceasing—and rightly so—to become a useful vehicle for the conveyance of mere information to the mind. Its chief purpose must be to enable those who receive it to learn how to " live worthily and well," using that expression in its highest and best interpretation. It follows, therefore, that education is not a luxury. It is a great and urgent national need. One cannot do better than quote the *Times Educational Supplement* (December 24, 1921) in its reply to Lord Inchcape :

" Did the farmer, when he found the yield from his farm insufficient to pay his rent, cut off his fertilisers? Lord Inchcape has been speaking of education as a luxury, but if he found his steamers were too small to compete with a rival firm he would not proceed to cut down their size, but would borrow to enlarge them. Economy did not mean cutting off the chances of getting more revenue. Lord Inchcape would not sail a single steamer but for the education of the great inveators and scientists who made them possible, nor would his staff know how to handle them but for the training they had received from their teachers."

* * * * *

And finally, the proposals of the Committee in regard to Training Colleges and the Universities will require great vigilance. Our colleges and universities must not be starved for want of financial support. It is humiliating to see the heads of our educational institutions so frequently on the doorsteps of our merchant princes begging for "their interest and support." To their honour, many of these merchants have responded handsomely. They might have done otherwise. But it is not a dignified spectacle. Education is the nation's business. We must not let our seminaries thrive by leave of the "nouveau riche."

To sum up—one of the most potent instruments of real progress is to be destroyed. We are looking forward to the building up of a new Co-operative Commonwealth. That Commonwealth will, in the ultimate, depend for its security upon the measure of real education its citizens will have achieved.

The Geddes Report is a document of tremendous importance. It raises one of the biggest issues in politics.

"There is much unmeaning play in politics; but the Government had better understand that if they strike their threatened blow at the schools through the foul stroke of the Geddes Committee's Report they will have all the fighting they want. Not a score of Irish settlements will avail the Prime Minister if the designer of the 'land fit for heroes' makes his next appearance before them with a request kindly to overlook the theft of their children's slate pencils."—("Wayfarer", in the *Nation*).

We agree! The challenge has undoubtedly been thrown down. Whoever else may remain quiescent, the Labour movement cannot afford to do so. We must accept battle. If we fail to do so, we shall cover ourselves with shame. It would be an act of base treachery to the Britain of to-morrow.

CORRESPONDENCE

A LETTER FROM BERNARD SHAW

To The Editor, The *Calcutta Review*

Sir,

There are people who can never make themselves interesting; and they are generally the men who come our way: but there is that other class again whose chief essence, so to speak, consists in being perpetually interesting. I need hardly point out to which class Mr. George Bernard Shaw belongs. He does not know how to be dull, one is almost tempted to add—how to avoid attracting too much attention. But this very element of novelty, or brilliance or cleverness,—or whatever you may choose to call it—in his writings, has, in my opinion done a two-fold harm in his case. First, as regards the public, it has engenderel in the minds or palates should I say?—an insatiable craving for the unexpected sensations his writings so often provide, so that they pay little or no attention to the message underlying his words; forgetting, in their enthusiasm for his particular *way* of saying things the rather important fact that after all he does speak *about* something. Then concerning the author himself, I think, though I write this with all the misgivings natural to one not used to treading on controversial ground, that Mr. Shaw has been influenced to a great extent by this peculiar attitude of the public, which is proved by the fact that he often goes rather out of his way to give people "a piece of his mind," serving it of course, like the good cook who respects his patron's preference, hot and fresh from the oven of his brain, and seasoned with abundant quantities of pungent phrases and crisp caustic expressions. And that explains why we find more froth and foam than depth of sentiment in *some* of his writings.

But here, as usual, I seem to have left the main road at the sight of an alluring bye-lane. I did not intend to write a literary criticism about Mr. Shaw's works, many of which let me declare, move me to ardent admiration. I just wanted to tell you that I find all G. B. S. invariably irresistible, and I wanted to prove my assertion with the help of a letter from his pen. His arrogant, but at bottom kindly humour makes even his letters worth possessing, nay, what is more, worth sharing with others. Which is rare indeed.

The letter from Mr. Shaw given below, is a particularly happy one as it reveals an aspect of his mind about which he is apt to be rather reticent in his writings ; and besides, admirers of that author are sure to mark and relish the characteristic Shavian flavour about it. He is so gay and irresponsible !—and yet there is an occasional underglow of restrained eloquence behind some of his sentences. It was the first letter I got from him, and I received the letter in answer to one of mine when I was barely fifteen years of age. At that time my mind was full of the vague misgivings and moods of unrest that visit one specially at the threshold of one's life; and I suppose I needed the electric shocks which Shaw thought it fit to administer to me ! Of course I did not feel convinced by many of his arguments even then, but his curt advice must have had its use for me at the time, and perhaps did something to lighten the load of gloom that settles on a mind which tries to see things for itself for the first time, and strives, yet fails to reconcile itself to these difficult conditions called life.

"10, ADELPHI TERRACE, W. C.
LONDON, ENGLAND.

DEAR SIR,

Did you ever read the Autobiography of John Stuart Mill? Or John Bunyan's Grace Abounding ? If ever you do you will find that it is not unusual for young men to fall for a time into "a terrible state of mind" in which they describe themselves as "unhappy creatures of God." It is a sort of adolescent melancholia : one grows out of it; and it does not recur. While it lasts you must put up with it as best you can.

However, you need not make yourself worse by mixing up your religions. You will find in Shakespear's Lear one of the characters, oppressed by the spectacle of human misery, exclaiming

"As flies to wanton boys, so we are to the Gods
They kill us for their sport" ;

and in Browning's Caliban upon Setebos, or Natural Theology on an Island, you will find Caliban interpreting the relation of God to himself in the light of his own relation to the crabs on the beach when he amuses himself by watching them and helping them or hindering them as the fancy takes him.

Now this, you will observe, comes of believing that God is omnipotent. No doubt if he is, he is responsible for everything that happens in the universe; and the fact that there is cruelty in the world proves him cruel, injustice proves him unjust, and mortality proves him futile to people like yourself who have so little imagination that they want to live for ever: a horrible fate—or is your self-love so prodigious that you are sure you would never grow tired of Amiya Chakravarty, even after enduring a hundred thousand years of him?

But pray who told you that God is omnipotent? Was it not the teachers whose teaching you have discarded in a dozen other things by the light of modern science? And if their authority no longer weighs with you, what evidence do you find in nature that God is omnipotent? Your letters show that you find none: that you see everywhere that the will to virtue and knowledge of which you are conscious because it is a part of yourself, is baffled in all directions by stupidity and ignorance and weakness? Is it not clear to you then that God himself has to struggle with these obstacles, and that the long course of evolution is the history of his efforts to produce hands and brains that will conquer the world from him? Have you never read the third act of my *Man and Superman*? If you have not, why do you appeal to me for counsel?

You ask yourself why God made you; and your answer is that he made you that he might amuse himself by tormenting you. Are you then so very amusing—or very interesting—that you are a sufficient amusement and occupation for God?

He must certainly have made you for no other purpose than as an instrument to help him in making his will prevail. No doubt you are a disappointment to him, as you pity yourself and blame him instead of helping him. But then he is used to disappointments. When he made the cobra, he thought it would redeem the world for him; but it failed, and he had to make the mongoose to kill it. And unless you take up the fight against evil, he will certainly make something higher than man to kill you.

* * * *

Yours faithfully,
G. BERNARD SHAW"

* * * *

I once showed this letter to Sir William Marris, Governor of Assam, and his comment was—"it was evidently written with the kindly object of surprising you out of a natural, if needless melancholy." I can quite believe him.

I have etc,
AMIYA CHANDRA CHAKRAVARTI

Reviews

THE ASIAN LIBRARY

Nationalism in Hindu Culture—By Dr. Radhakumud Mookerji.
The Buddha's Path of Virtue—By F. L. Woodward.
The Cultural Unity of Asia—By James H. Cousins.
(Theosophical Publishing House : Adyar, Madras.)

These three volumes keep up the high aims set before themselves by the publishers and are in every way worthy companions to the two volumes already reviewed in these pages. The first mentioned—*Nationalism in Hindu Culture*—is by an author who needs no introduction to our readers. He deals in this with a special aspect of Hindu literature—the expression of love and worship for the motherland. We are often and often told that India was never a nation in the past and that it was " a geographical expression." Even among our nationalists we hear that opinion expressed, as if the idea of patriotism was imported here in the 19th century. Dr. Radhakumud Mookerji definitely demolishes the idea and proves with apt quotations that even in the long past ages of the Vedas we have in India a full consciousness of the *whole* of India in the minds of the people and a great love amounting to worship of the motherland. The magnificent hymn quoted from the *Atharvaveda* is a piece worthy to be ranked among the great " national-hymns " of the world.

The Buddha's Path of Virtue is a veritable gem. To most outsiders the essence of the great Religion of the Buddha is contained in the *Dhammapada.* Mr. Woodward has given us a fine English version of the original Pali. The author has given his life to the revival of Buddhism in Ceylon and has worked for years among the Buddhists, living with them and himself humbly following " the Path of Virtue " pointed out by the Enlightened One. So this is not merely a dry translation of the scholar but the outpouring of life's deepest feelings. Every line comes from the heart for the author has not evenly read the *Dhammapada* but has *lived* it. There are helpful notes at almost every page intended to help those who would like to read the work in the original Pali. The appropriateness of this book in the "Asian Library" is obvious because almost half of Asia follows "the Path of Virtue."

The author of the third work has already made a name for himself as a poet-interpreter of the East to the West. Of Irish birth he possesses to the fullest extent the fine sensibilities, which make him see the Asiatic point of view. About a couple of years ago he had been invited to live in Japan for a year as lecturer in Modern English Literature at the University of Tokio. One almost envies the students who heard his lectures there. While there he also studied himself the spirit of Japanese culture as he had been so long doing in India and a new synthesis of Asian culture and thought was the result of this double experience in his poetic soul. This he explains convincingly and in his own inimitable language in this fine volume of the "Asian Library." He has shown how Hinduism and Buddhism, India and China have contributed to make Asian culture what it is to-day. India, he rightly maintains, has been the mother of all Asiatic thought—the prototype of Asiatic humanity. The author has done great service to all lovers of the East by writing this book. But might I suggest that there is a third element in Asian Culture, that represented by Persia and Islam which has had an important share in moulding the history of Asia? The spirit of Persia has been essentially Aryan as represented by India at her highest and to it was united the fresh vigour of democratic Islam; and this union has moved Asia to her very depths and has in a sense prepared her for the impact with Europe. Mr. Cousins has merely referred in passing once or twice to this third aspect of Asian Culture. Persia, India and China are the trinity of Asia, of which India is the centre and pivot.

I. J. S. T.

Apostles of Freedom.—By Prof. T. L. Vaswani, Re. 1. PP. 113, Ganesh & Co., Madras, 1922.

It consists of a few character sketches. But the author forgets that biographical sketches do not permit reckless speculation or an unhampered flight of imagination. He calls Nanak an apostle of freedom. Nanak was an apostle of freedom in a much higher sense than in which the word is generally used. One may put his own interpretation upon the words and the deeds of the world's great men but this interpretation may not be correct. One sample of Prof. Vaswani's method of putting his own meaning upon the sayings of Nanak will suffice. "Nanak sings the very secret of education.

> Burn worldly thoughts, rub the ashes and make ink of it;
> Let the paper on which you write be the paper of faith;
> Let your heart be the pen;
> Then write the Name and the praise thereof;
> And write without end or limit.

The current system of education in India has been worse than a failure; for the wise injunction has been ignored :—'Let your heart be the pen; then write the Name.' Intellect has been sharpened; but when was nation saved by a soulless intellect? Brother! let your heart be the pen, then write the Name—the Mother's Name—in the ink made of *tapasya*; and you will write in flaming letters the freedom of Hindusthan." We are afraid this interpretation of the song is neither accurate nor just. The Name was the name of God and not of this or that country and the song was intended not for India alone but for all the world. In the old *swadeshi* days the police used to regard the *Gita* with suspicion, to them it was the Gospel of Sedition, Prof. Vaswani's interpretation of Nanak also savours of a similar way of thinking. It is really strange how the extremes meet.

Nanak again is called the Champion of Hindu-Muslim unity for has he not said—"There is no Hindu and no Mussalman?" On the same ground Jalaluddin Rumi might also be called an apostle of Hindu-Muslim unity for he too sang: "I am not of Iran or Turan, neither a Khorasani nor an Ispahani am I! I am neither a Hindu nor a Mussalman!" But in Rumi's native country there was no Hindu and to an unphilosophical mind it appears he spoke of his soul. The author who is a philosopher, however, forgets that Nanak was not a patriot! How narrow is the idea of patriotism in comparison with the ideal of universal brotherhood? Nanak was not merely an Indian, he was a man, a citizen of the world in the widest sense of the term. To him both the perpendicular and the horizontal lines that divide the earth were meaningless and unnecessary. He was not hampered by the petty geographical boundaries. Yet he has been dragged down by the author from his celestial height to lead a band of patriots which includes the Irish Sinn Feiners. The Sinn Fein leaders may be great men but Nanak was greater. They are patriots, he was a saint. They think of the Freedom of Ireland, he thought of and strove for the freedom of soul, for universal brotherhood. It is blasphemy to put a political interpretation on his utterances.

The author speaks of the Sikh nation. This might have been excused in the first quarter of the 19th century, it is ludicrous in the third decade of the 20th. But he solemnly writes of Rammohan—"He was not a Sindhi; his dress and language and ways of living were not ours; but he is ours." This is surprising—coming as it does from one whose ideal is Indian Unity." Rammohan belongs to Sind, because he belongs to India. But logic and accuracy are not the strong points of these sketches.

Prof. Vaswani quotes with approval from the late Lokmanya Tilak's Calcutta speech—"We shall not give them assistance to collect revenue. We shall not assist them in fighting beyond the frontier or outside India with Indian blood and money" and concludes that Tilak was a Non-Co-operator. Yes, he was a Non-Co-operator when he made this speech and that was long before the advent of Gandhi. But Tilak's mind did not work in a narrow groove and Tilak was not so fond of his theories as not to be able to discard them when circumstances changed. Prof. Vaswani remembers the Calcutta speech quite well but he forgets that the same Bal Gangadhar Tilak had not only urged his Indian compatriots to join the Indian Defence Force after the outbreak of the world-war but had offered his son for enlistment. Tilak's mind lacked that inertia which paralyses the intellect of inferior men.

The great defect of these small sketches is that they are written with a purpose. Prof. Vaswani forgets that History is very exacting. Nothing but truth can satisfy her. She wants to examine both sides of the shield, and that very carefully, a mere peep or a glance does not cure her curiosity. Prof. Vaswani's style is charming, his book is extremely readable, but owing to a lamentable lack of balance and utter indifference to the historical background these otherwise well-written and charming little sketches are of doubtful value to students of History and are likely to mislead (though harmlessly) the mere lay reader.

Rudra Sen

Landscape Gardening as applied to Home Decoration: by S. T. Maynard, Professor of Botany and Agriculture at the Massachusetts Agricultural College, published by Chapman & Hall, Ltd.—Price 13 *s.* 6*d.* net.

The book is primarily written to give concise and practical information to busy home builders who cannot get expert advice as to how to lay out gardens, to care for trees, ornamental shrubs, etc., and to group and arrange them in such a way with the dwelling house and other buildings as to make the whole a beautiful home-picture. There are directions for decorating large Estates, Parks, Public Squares, as well as for the care of roads and roadside trees and shrubs. Full descriptions of plants recommended are given in extremely plain and simple language so that even the inexperienced man can follow the author. There are about 200 illustrations many of them full-page half-tones. The more than 40 years' experience of the author has enabled him to write a really useful book on the art of ornamental gardening. This work will be of great assistance to any one desirous of building himself a house with garden ground attached.

H. C. M.

The Boy Scouts' Camp Book: by Philip Carrington, published by Messrs. C. Arthur Pearson, Ltd., price 1*s.* 6*d.*

This is one of the best books on the subject we have yet seen. It is profusely illustrated and abounds in practical wrinkles and hints. We recommend this small book to the attention of our boy-scouts who, we are sure, will find it exceedingly useful.

H. C. M.

Walking: by C. Lang Neil with contributions by W. J. Sturgess and W. Griffin, published by Messrs. C. Arthur Pearson, Ltd., price 1*s.* 6*d.* only.

This practical guide to pedestrianism will be found to be useful not only to athletes but also to the ordinary man who on account of age or other causes has to confine himself exclusively to this form of physical exercise. The first two chapters with those on the Care of the Feet, the Athlete's Clothing and Walking Tours are specially valuable.

H. C. M.

Training for Athletics and General Health: by Harry Andrews, Trainer of Montagu A. Holbein, Frank Shorland A. A. Chase, A. Shrubb, J. Butler, A. E. Walters, Platt-Betts and many other famous champions, published by Messrs. C. Arthur Pearson, Ltd., price 1*s.* 6*d.*

A book by a practical trainer which solves many problems which have to be faced by the athlete. The sections on Sleep, Bathing, Food, Drink, Smoking, etc., contain much valuable information which cannot fail to be useful to the man who has any desire to keep healthy.

H. C. M.

The Gardenette or City Backyard Gardening: by B. F. Albaugh, published by Messrs. Stewart & Kidd Coy., Cincinnati, Ohio, U.S.A., price $1. 25.

This is a practical book by a practical man being written to meet the needs of the small beginner who has a limited area available for cultivating vegetables and flowers. The writer assumes that his reader is without practical knowledge of gardening and explains every detail which makes it a very helpful book to those for whom it is obviously intended. According to the author few persons realise the possibilities of a small piece of land. Accordingly he experimented on a space of ground 45 feet by 18 feet which, under his expert cultivation, produced sufficient vegetables to supply the needs of a family consisting of five to six persons throughout the season. The prolific production was largely due to the employment of the Sandwich system full details of which are given in the book. The method practically amounts to the creation of new and fertile soil by means easily available in nearly every place. The section on the growing of flowers also is valuable. We heartily recommend this book to the attention of those of our readers who are interested in the Back-to-Nature movement.

H. C. M.

Archæological Survey of India: Annual Report 1918-19, Part I.—This report is packed with information that is interesting and valuable to the student of Indian History. The writer of the Report, again, is such a master of the style that even a layman finds himself absorbed while reading it. We wish other departments had similarly drawn up their Reports so as not only to satisfy the requirements of an expert but also interest a general reader.

The Report describes the work carried out by the Archæological Department during the year 1918-19. This work may be divided under two heads: (1) conservation of ancient monuments; (2) research work.

Unfortunately for the Department, there was much depletion of staff and curtailment of funds on account of the war. Still the Report is a record of useful work done. As the old monuments of India are astonishingly numerous and most of these are in a bad condition requiring immediate attention, the work of their repairs and upkeep had to be given preference over new original work. Naturally, therefore, the Report opens with an account of the conservation of the archæological buildings. And many are the conservation works that were carried out in the different Circles during the year under review. The Northern Circle, Agra, of course, tops the list, but it is gratifying to find that Bengal was not neglected, though at that time there was no separate Circle for this province as it is now. The mosque of Sadi at Agarsindur, in the Mymensingh District, we learn, was conserved, and the damage caused by the earthquake of July, 1918, was made good. The historical monuments at Murshidabad also were taken in hand. But nothing can beat the conservation work done to the Buddhist Tope at Sanchi by the Director-General under his personal supervision. In what dilapidated condition the monument originally was may be seen from the plates in Fergusson's *Tree and Serpent Worship*, and how neat, tidy and entire it looks now may be seen from Plate VII of the Report. Here it was not a question of pure conservation work. A good deal of excavation had also to be conducted round about it to pick up as many of the old sculpture pieces as possible. These pieces, again, had to be identified and restored to their original place in the monument, and the missing ones in some cases reconstructed. This was therefore a stupendous task requiring the highest mental and physical powers of the archæologist, and has been most wonderfully carried out. If the Buddhist monks of the Gupta period are brought to life again, they will scarcely suspect that there was any human agency at work on their religious edifices after they departed for *nirvāṇa.*

The original work of the Department consists of the results achieved while excavating old sites or undertaking research tours. On account of the financial stringency created by the war, systematic excavations, such as that at Taxila, had to be held in abeyance, and on account of the urgency of the conservation programme, much research touring could not also be done. Still what little of new things has come to light is very important, and is sure to interest any kind of archæologist, or student of the ancient history of India. Thus one epigraphic record from Burma speaks of "a Chola Prince meeting Kyanzittha and to his being converted by him to Buddhism" (p. 24). Another inscription but from Rajputana records the construction of a Masjid by apparently a Hindu, called Khema, son of

Bharatha Bhopa, during the reign of Aurangzeb (p. 24). A third record of the 12th century A.D. and found in the Madras Presidency refers to "the rights of women to hold property and to other social laws such as 'that Brahmans shall not till lands with bulls yoked to the plough and that the labouring classes shall not become *Vel* and *Arasu* (*i.e.*, fighting men and landed aristocracy)'" (p. 26). The iconographist and also the student of Indian religions are sure to hail with pleasure the find of a figure of Balarāma of the 2nd or 3rd century A.D., in the Gwalior State, which is the earliest actual trace of Balarāma worship in India (p. 22). Not less interesting is the terracotta votive tablet discovered in Burma and containing the figure of Avalokiteśvara (p. 20). This is proof positive of Mahāyānism having spread in the 10th or 11th century A.D. to Burma, which has up to now been looked upon as the home of Hīnayānism only. These are only a few of the many interesting discoveries referred to in the Report.

Hardly a year passes without the Department taking one step or another in furtherance of its object. And for the year under report we have to note that the Archæological Chemist, who had been sent to England for training, returned to India and set himself to the task of overhauling the antiquities especially of the Archæological Section of the Indian Museum. This is perhaps the wisest and most important step the Department has taken. In India the archæological monuments are always exposed to the mercy of the elements,—the sun and the rain. In perhaps no other country quick and sure disintegration is noticeable. The preservation of the antiquities has therefore become a serious problem. And all the scientific knowledge and appliances of the day are required to devise methods to arrest this disintegration. The appointment of the Archæological Chemist is therefore a most welcome thing. But we hope it is only a beginning, for one single expert can never suffice for such a vast country as India. Not only antiquities of more or less minor importance such as those in the Indian Museum but such remains of supreme and national importance as, *e.g.*, the fresco paintings of Ajanta are to be conserved. It is, therefore, hoped that the Archæological Department will have not one but many Chemists who will be scientific experts in the conservation of monuments and who by their knowledge, skill and experience will be competent to successfully tackle the often bewildering problems connected with the preservation of Indian antiquities.

One suggestion may be thrown out to the Archæological Department for their consideration. No proper thought seems yet to have been bestowed upon the excavation of pre-historic sites. There seems to be yet no scholar in the Department who can be looked upon as an authority on the pre-historic antiquities of India. Pre-historic sites, again, seem to be excavated by persons who are not trained in the science and art of excavation. If this is correct, we ask the Department whether it is not high time to take this matter into serious consideration. It is, however, quite possible that this subject has already engaged the attention of the Director-General of Archæology.

APOLLODOTUS

Ourselves

The *Modern Review* quotes with approval a speech delivered by the Lord Bishop of Calcutta at the historic city of Patna. What the credentials of the Bishop are, we do not know. But we have been informed by the *Modern Review* on a former occasion, that he is "the son of a famous Regius Professor of Divinity at Cambridge and the younger brother of one of the most distinguished English scholars!" These are high qualifications no doubt, but we do not know whether the *Review* will find it convenient to admit them in all cases. But we forget the observation of Leslie Stephen, "Principle is in most cases nothing but an excuse for acting in the most convenient way." Referring to the University of Leeds and Manchester, Birmingham and Bristol, the Bishop says—"They are no less Universities because the range of subjects which they offer to students is limited." Let us see how limited the range of the studies offered by these new Universities is—probably it is more limited than that offered by the University of Calcutta, at least that is the obvious implication.

According to the *The Universities Year Book, 1922*, the University of Bristol has teaching provision in the following subjects:—

(1) Agriculture. (2) Anatomy. (3) Arabic, Armaic, etc. (4) Art. (5) Bio-Chemistry. (6) Botany. (7) Chemistry. Agricultural, Applied, Hygienic and Physical. (8) Classics. (9) Dentistry. (10) Economics. (11) Education. (12) Engineering. (13) English. (14) French. (15) Geography. (16) Geology. (17) German. (18) Hebrew. (19) History. (20) Italian. (21) Law. (22) Local Government. (23) Mathematics, Applied and Pure. (24) Medicine. (25) Military Subjects. (26) Mining. (27) Palaeontology. (28) Philosophy. (29) Physics. (30) Physiology. (31) Public Health. (32) Technology. (33) Theological Subjects. (34) Zoology.

This University was incorporated by Royal Charter in 1909 or 13 years ago. Birmingham, incorporated in 1900 or 22 years ago, provides facilities for study in the following subjects :—

(1) Accounting. (2) Agriculture. (3) Anatomy, Human and Anthropology. (4) Botany. (5) Brewing. (6) Chemistry. (7) Classics. (8) Commerce. (9) Dentistry. (10) Economics. (11) Education. (12) Engineering. (13) English. (14) French. (15) Geology nnd Mineralogy. (16) German. (17) History. (18) Italian. (19) Law. (20) Mathematics. (21) Medicine. (22) Metallurgy. (23) Mining. (*a*) Mining Petroleum Tech. (*b*) Mining Coal and Surveying. (*c*) Mining, Metal. (*d*) Mine Rescue Work. (24) Music. (25) Philosophy. (26) Physics. (27) Physiology. (28) Russian. (29) Spanish. (30) Zoology. (31) Medicine.

The University of Leeds, incorporated 18 years ago, teaches—

(1) Agriculture. (2) Anatomy. (3) Bio-Chemistry. (4) Botany. (5) Chemistry. (6) Classics. (7) Dentistry. (8) Economics. (9) Education. (10) Engineering. (11) English Lang. and Lit. (12) French. (13) Geography. (14) Geology. (15) German Lang and Lit. (16) Hebrew. (17) (18) History. (19) Law. (20) Mathematics. (21) Histology, Medicine. (22) Metallurgy. (23) Mining. (24) Philosophy. (25) Physics. (26) Physiology. (27) Russian Lang. and Lit. (28) Russian History and Music. (29) Spanish Lang. and Lit. (30) Technology. (31) Veterinary Hygiene. (32) Zoology. (33) Forestry.

Under Technology we find—

(1) Coal, Gas, and Fuel industries. (2) Colour Chemistry and Dyeing. (3) Leather Industries. (4) Textile Industries.

Manchester founded in 1880, has indeed a very limited, range of subjects, namely :—

(1) Accounting. (2) Agriculture. (3) Anatomy. (4) Arabic. (5) Archæology. (6) Architecture. (7) Banking.

(8) Botany. (9) Chemistry. (10) Chinese. (11) Classics. (12) Commerce. (13) Crystallography. (14) Dentistry. (15) Economics. (16) Education. (17) Egyptology. (18) Engineering. (19) Electro-Technics. (20) English Language and Literature. (21) French Language and Literature. (22) Geography. (23) Geology. (24) German and German Philology. (25) Hebrew. (26) Histology. (27) History. (28) Italian Studies. (29) Law. (30) Mathematics. (31) Medicine. (32) Metallurgy and Metallography. (33) Mining. (34) Music. (35) Palæography. (36) Philology. (37) Philosophy (38) Physics. (39) Physiology. (40) Political Philosophy. (41) Psychology. (42) Public Health. (43) Railways. (44) Russian. (45) Semitic Languages and Literature. (46) Spanish. (47) Technology. (48) Theology. (49) Veterinary. (50) Zoology.

No doubt it shows sturdy independence to say ditto to whatever may fall from a Bishop's lips, and it no doubt indicates a slave mentality on the part of an adversary if he fails to condemn his *alma mater* of megalomania; but it is noteworthy that although "one and the same University should not attempt to provide for the pursuit of every possible branch of knowledge" these four Universities teach many common subjects and do not exclude them simply because a neighbouring University, not in France or in Ireland but, within a hundred miles of its halls, teaches these self-same subjects. We are quite familiar with the logic of our friend ; he will probably say, England is rich and we are poor, so our intellectual like our material meal should be poor. He however fails to see that a part of the money wasted on some of the pampered departments of the government may be very well diverted to education, and that is what our people should press for. The range of studies offered by many University Colleges in England is often as wide, or to be more accurate, not less limited than that offered by the University of Calcutta.

New Ph.D's and D.Sc's—

The following gentlemen have been admitted to Ph.D. and D.Sc. degrees on submission of the theses noted against their names—

Ph.D.—

1. Mr. Hemchandra Raychaudhuri, M.A.—" Political History of Ancient India from the accession of Parikshit to the extinction of the Gupta Dynasty."
2. „ Abanibhushan Datta, M.A.—" Bessel Functions and their applications."
3. „ Narendranath Law, M.A.—" Aspects of Ancient Indian Polity."

D.Sc.—

Mr. Surendramohan Ganguli, M.Sc.—" Analytical Geometry of Hyper-spaces."

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Mouat Medallists—

The following gentlemen have been awarded the Mouat Medal on completion of their Premchand Roychand studentships—

(*i*) Mr. Mohinimohan Bhattacharyya, M.A.
(*ii*) Dr. S. K. Chatterjee, M.A., D.Litt.
(*iii*) Mr. Panchanan Mitra, M.A.

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Onauthnauth Deb medal and prize—

Mr. Bijanchandra Mookerjee, M.A,, M.L., has been awarded the medal and prize for 1922 upon a thesis on Law of the Air, International and Municipal.

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Sir Asutosh Mookerjee Medal—

Mr. Brajendranath Chakrabarti, M.Sc., has been awarded the medal, for 1921, upon a thesis entitled " Diffraction."

* * * * *

The Griffith Memorial Prize—

The Griffith Memorial Prize for 1921 has been awarded to the following gentlemen (to be divided equally among them) upon the theses noted against their names :—

(*i*) Mr. Amareswar Thakur—Hindu Law of Evidence.
(*ii*) ,, Nanigopal Majumdar—Indian Cults of Vajra.
(*iii*) ,, Susilkumar Maitra—The Hindu Analysis of Volition.

* * * * *

On the results of the Final B.L. and the Intermediate Law Examinations held in February, 1922—

(*i*) the Ritchie Prize has been awarded to L. A. Gopalakrishna, of the University Law College ;
(*ii*) the Parbaticharan Ray medal has been awarded to Saradindubhushan Bandyopadhyay of the University Law College.

* * * * *

Nagarjuna Medal and Prize—

A sum of Rs. 10,000 has been accepted from Sir P. C. Ray, Kt., C.I.E., Palit Professor of Chemistry, for founding an annual prize to be awarded for the best piece of research work in Chemistry, Pure or Applied, by any student working in the College of Science.

The award of a Gold Medal of the value of Rs. 100/- and a prize of Rs. 500/- in cash shall be made by the Syndicate on the recommendation of the Board of Adjuticators consisting of—

Palit Professor of Chemistry.
Ghose Professor of Chemistry.
Ghose Professor of Applied Chemistry.
Singh Professor of Chemistry.

* * * *

We draw the special attention of our readers to the very interesting statistical account drawn up by Professor Taraporewala. After all, very few of the Mahomedan candidates took advantage of the special concession offered to them by the authorities of the University. And the University Examinations were held many times during the sacred month of *Ramzan* previous to this year. But we forget that those were "pre-reform" days!

* * * *

We hear of very unwelcome rumours that some of our noble Councillors are anxious to work up feeling against the Calcutta University. As we are about to emerge out of the press, a Mahomedan friend of ours gives us to understand that much misunderstanding has been caused amongst the Mahomedan members of the Bengal Legislative Council, because the Senate has recently adopted the policy of holding examination and imparting instruction up to the Matriculation Standard in all subjects (excepting English) through the medium of the Vernacular. The Mahomedan Councillors, we are told, resent very much this innovation as they think that Urdu has been deliberately thrown overboard. Good heavens! nothing of the kind. Much misunderstanding would have been avoided and much heart-burning would have been put to a stop to, if only the Councillors had not interpreted the expression "Vernacular" as "Bengali." Thus, if the vernacular of a Mahomedan candidate is Urdu, then he will be entitled to have both instruction and examination in Urdu as his vernacular. Similarly, an Assamese student whose vernacular is Assamese will be both taught and examined in Assamese. Surely there can be nothing wrong in this. We frankly admit, however, that wide difference of opinion may exist as to the expediency or the wisdom of the adoption of the policy of imparting education through the medium of vernaculars, but communal feelings should not be permitted to warp our judgment, far less hold back the progress of nationalism which is admittedly the goal according to both Hindus and Mahomedans.

* * * *

"The Calcutta University deserves congratulation for its scheme of post-graduate studies, including, among other subjects, Maratha History and Literature. This step is sure to create a better and more intimate acquaintance between the various nationalities of India, thereby building them ultimately into the greater Indian Nation. The Bombay University must, no longer, neglect to reciprocate the excellent beginning which Bengal has made.

These sentiments are suggested by a handsome little volume of 270 pages, which the Calcutta University has just brought out, containing a very good English translation of the best chronicle of Shiwaji's life, existing in Marathi, together with several important extracts from other *bakhars* detailing the life history of that great hero. It is very creditable to Professor Surendranath Sen to have studied the Marathi language, especially with a view to learn the History of Maharastra from original sources and to have brought out this useful volume, so as to bring the subject within the reach of all Indian readers. The task was, by no means, easy, since the style and language of the *bakhars*, at least two and a quarter centuries old, is very much unlike the present day Marathi. I have compared the translation with the original and am glad to say that it is faithful and elegant, and yet quite simple. It has nowhere lost the sense of the original, though here and there one may meet words or phrases, which have changed their meaning or import, since the time the authors used them in their narrative. But such discrepancies are so few that they can be easily neglected for all practical purposes. Mr. Sen's work is sure to foster scientific interest and critical research in Maratha History on the part of various scholars interested in that useful subject. So long as the original materials are locked up in one not very widely spoken language, Maratha history cannot benefit by the critical examination of outside scholars. The present work is thus doubly useful.

More volumes of this nature are surely expected to follow; and if so, I would venture to make one small suggestion. The material on Maratha History existing in Marathi is huge and widely scattered; only about a thousandth part of what is rescued from oblivion and ruin, has, so far, been printed and even such printed volumes are to-day something like 150, if not more. A wholesale translation of all these being practically out of the question, a really fine selection of papers should be made for the sake of translation by a small body of experts, both Bengali and Marathi, who, I dare say, would be happy to make this selection gratis. If the next volume for translation has not already been undertaken, I would suggest taking up all the original letters of Shiwaji, which may not be more than 30 or 40; and which would cover not more than hundred printed pages. These letters speak out the real man and his noble work. In fact, of all original papers existing in Marathi, the epistolary portion is, by far, more valuable historically than *bakhars* or chronicles, *e.g.*, the Panipat Period of 11 years (1750-61), is now lucidly illustrated by several hundred original letters which give a realistic picture of that important historical event. In my own history of the Marathas, covering the period (1707-61), which I have just sent to press, and which, I expect, will come out shortly, I have taken account of all existing materials, a list and importance of which can now be easily discovered and verified by all readers knowing Marathi; for it is not an easy job to wade one's way through this widely-scattered and ill-arranged original material. Let us all work in co-operation in our own spheres and the results will doubtless benefit all India. I congratulate Professor Sen on his arduous labours and wish him success in his future undertakings."

* * * * *

So writes Mr. G. S. Sardesai, the celebrated historian of Maharashtra. Mr. C. A. Kincaid wrote to the author : "I think it a very fine piece of work; and I had myself thought of translating Sabhasad Bakhar. But I am very glad you have saved me the trouble." In a letter written while the translation was in progress Prof. J. N. Sarkar observed : "The method you have now adopted in translating Sabhasad is the proper one. Please push on with the work." Prof. Ramsay Muir wrote to Dr. Sen—"your work bears all the marks of exact and scientific scholarship and both you and the University of Calcutta have every reason to be proud of the admirable beginning thus made in the rendering of an essential service to historical scholarship." In the opinion of Mr. H. Beveridge, Mr. Sen has done good service by making a new translation of Krishnaji Sabhasad's chronicle. The *Times of India* has pointed out that Mānkar's Translation of Sabhasad has become so scarce that only two copies could be traced in England and Mr. Sen's translation was therefore very timely. Dr. Sen's Siva Chhatrapati was most elaborately reviewed in the January and February numbers of the *Vividha Dnan Vistara*, (1921), the oldest as well as the leading Marathi monthly of Bombay. We have been informed that the reviewer was no less a scholar than Rao Bahadur Kashinath Narayan Sane. His review covers 19 closely printed pages and cannot be reproduced in full. Rao Bahadur Sane says that "on the whole the work of translation has been well done; Taking care that the sense of the Marathi original should be clear the translator has nowhere made any amplification and he deserves credit on that account." He then makes a detailed examination of the translation and refers to every passage where he fails to accept Dr. Sen's rendering. He makes a similar careful examination of the notes and appendices and invites Dr. Sen to discuss these points in the columns of the *Vistara*. As Dr. Sen does not write Marathi he could not accede to this request but he found himself unable to accept all the suggestions of Rao Bahadur Sane. Nevertheless we are sure he will find them useful. Rao Bahadur Sane has practically retired from all literary work; that he should consent, in spite of his failing health and advanced years, to review Dr. Sen's book should in itself be deemed a unique honour. Dr. Sen's Siva Chhatrapati was sent to the *Modern Review* about two years ago in June, 1920. That leading monthly has not yet found it convenient to review this book, but a bird whispers in our ears that some body intimately connected with the *Modern Review* is writing to people at Baroda and Bombay to lend him "these numbers of the *Vividha Dnan Vistara* that contain the review of Sen's book."

* * * *

We are in receipt of an article from Babu Sitanath Pradhan (Professor, Sylhet Government College) who has been studying the political history of Vedic India particularly its chronological aspect for a long time. We are sorry we are unable to print it this month for want of space, but may notice the following special points of his article which embody conclusions arrived at by him as a result of patient study of one of the most fascinating periods of the history of India. Some of his conclusions may be summed up thus :—

(1) The Ṛg-Vedic ṛṣi Mudgala Bhārmyaśva was the son-in-law of the famous king Nala of Niṣadha.

(2) The famous Ṛg-Vedic king Atithigva Divōdāsa was no other than Divōdāsa the brother of Ahalyā of the Purāṇas.

(3) The Vāyu is the oldest of all the Purāṇas so far as the vedic age is concerned, the genealogies preserved in the Purāṇas having been originally meant to describe the various dynasties of kings who parcelled out and ruled India of the vedic period.

(4) Pārāśarya Vyāsa compiled and grouped the vedas after the forest of Khāṇḍava was burnt down by Arjuna Pāṇḍava.

(5) The Ikṣvāku dynasty from Dasaratha to Bṛhadvala as represented in Purāṇas really consists of two dynasties, one, of the descendants of Kuśa, and the other, of the descendants of Lava. The Kōsala king Bṛhadvala was a descendant of Lava and not of Kuśa as represented in the Purāṇas.

(6) The Ṛg-vedic Aryans were not couped up in the Punjab to the west of the Sarasvatī as has been held by Dr. Abinashchandra Das in his Ṛg-vedic India, but occupied almost the whole of the Aryavarta, the non-Aryans having been scattered here and there. Even a portion of the Deccan was occupied by the Āryan during the Ṛg-vedic Period.

(7) Vedic Chronology developed in the Ṛg-vedic India by Dr. Abinashchandra Das is scarcely tenable.

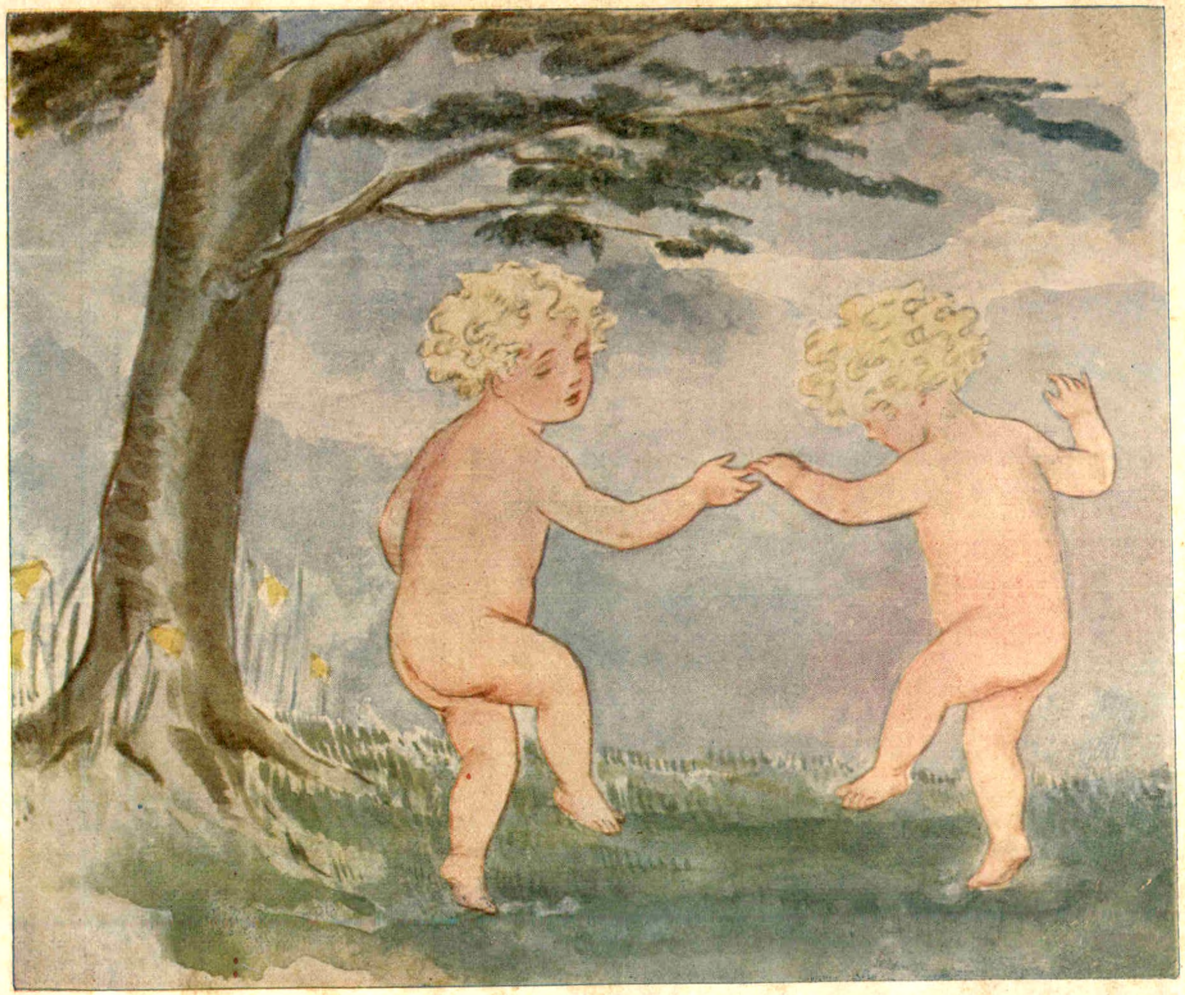
(8) The Chronology built up by the late Bal Gangadhar Tilak in his Orion rests on an unstable basis.

(9) The date of the Mahābhārata war would be approximately about 1150 B.C.

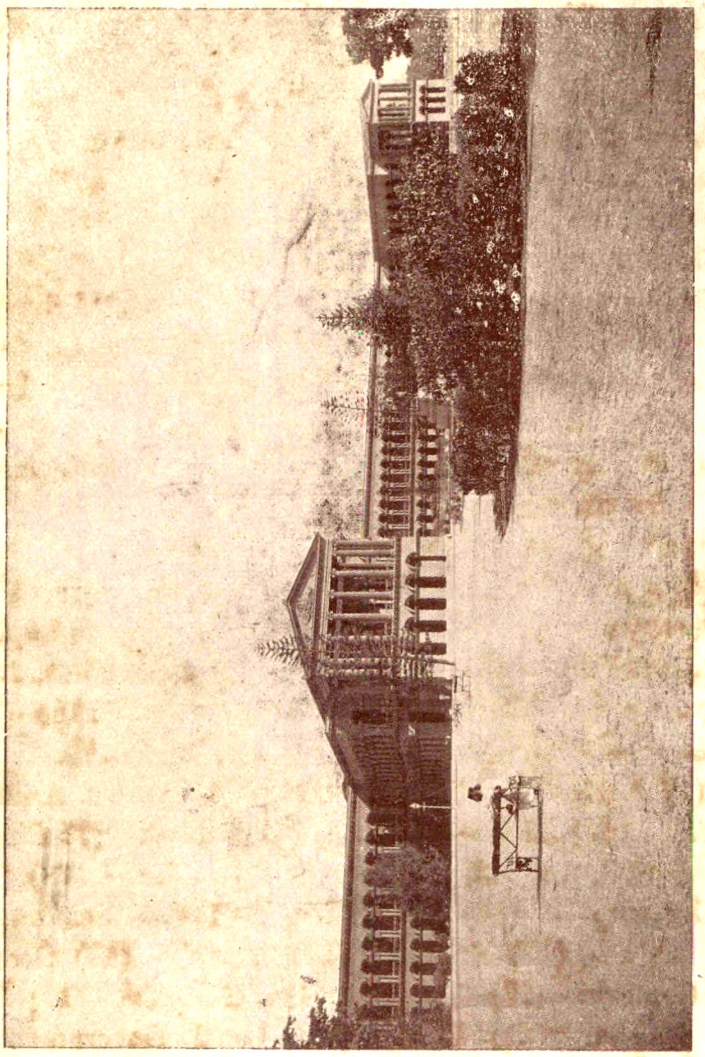
(10) The town Pandanya founded by Asmaka, the son of Kalmāṣapāda Aikṣvāka, was the same as Pōtana of the Assakas of the Buddhist period.

(11) The age of Atithigva Divōdāsa of the Vedas was earlier than the Mahābhārata episode by a period which can be covered by about 13 generations.

A correction for our last issue, p. 419, line 16, read "imitation Shivaji" instead of "pseudo-Shivaji," and for this number, Vol. IV, No. 1, page 100, omit "Wayne Gard."



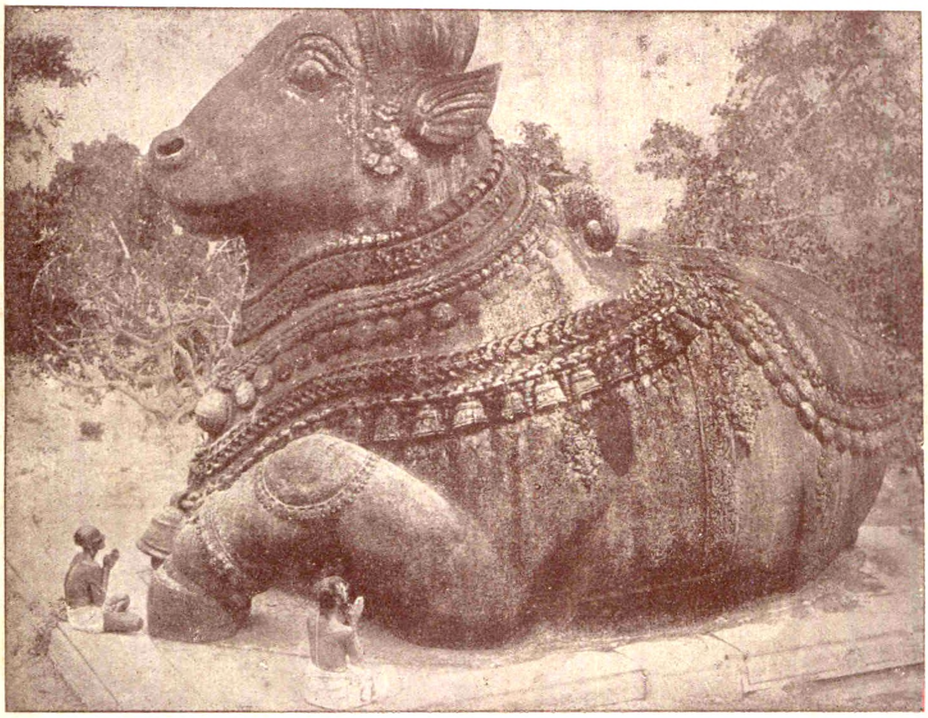
"COME, FOR IT'S JUNE"



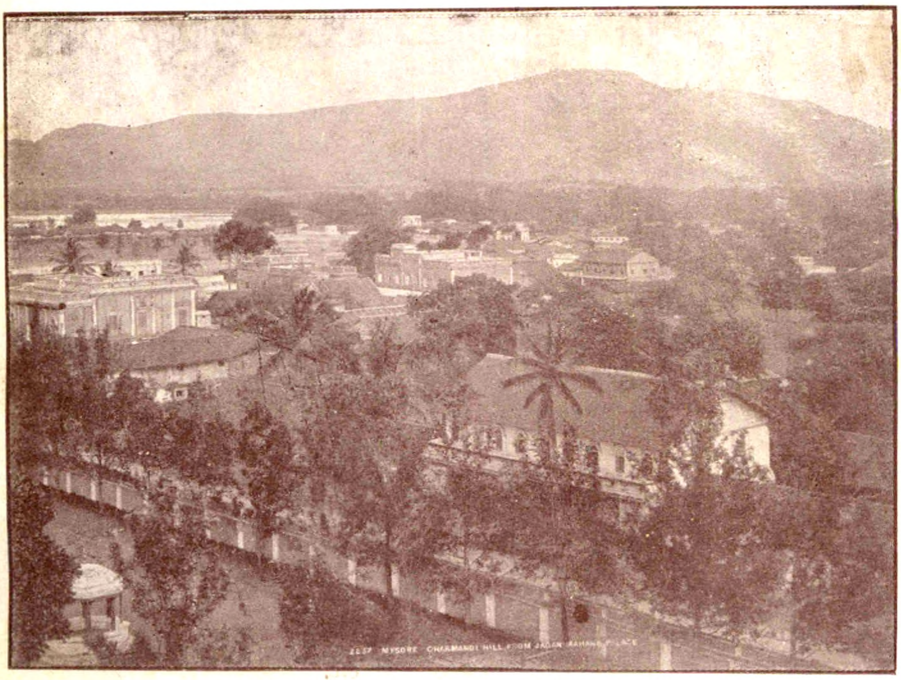
Court House, Bangalore.

Bangalore—Lalbagh.

The United Service Club—Bangalore.

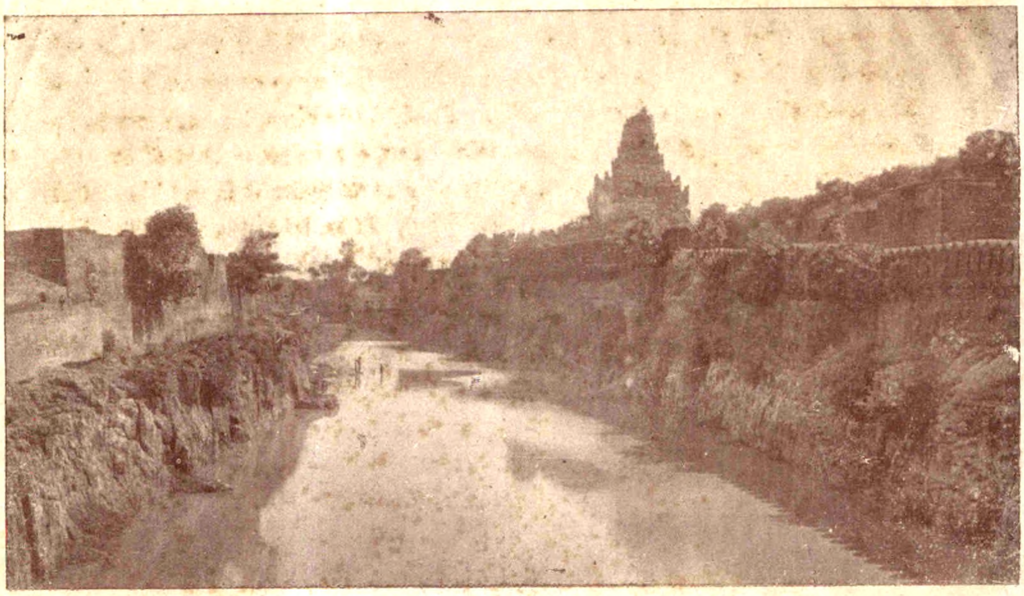


The Sacred Bull.


2257 MYSORE CHARMANDI HILL FROM JAGAN MOHAN PALACE

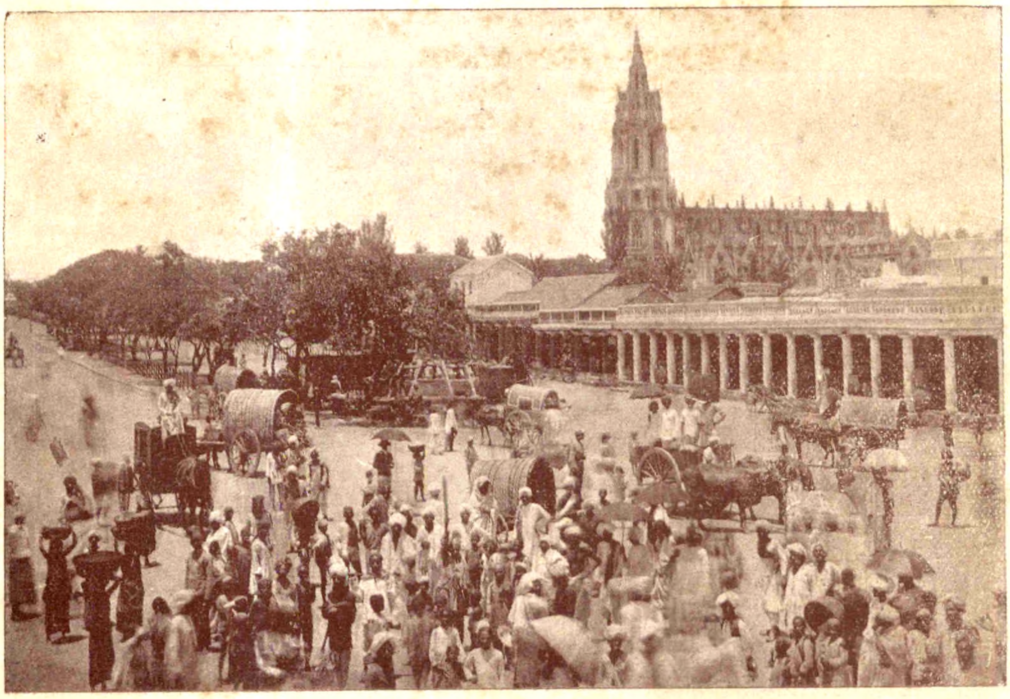
Charmandi Hill from Jaganmohon Palace.

BANGALORE : OLD AND NEW



Ruins of Tanjore.

By courtesy of the *Bharatbarsha*.



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DEBAL

There is a semblance of stage-setting in the record of Sind history, for across its pages as across a stage flit creations that are with us awhile and then gone. Of their coming and of their going we have no control; spectators at the mercy of the play-wright we can rarely follow the life-line of a single one from its birth to its close. And in nothing is shown a greater disrespect for continuity than in the meteoric flashes that reveal for a time new centres of history, and the sudden eclipses that end their days. The origins of the major part of the ancient sites of the valley are lost in impenetrable obscurity. None can tell how or when arose Alor, Sehwan, Debal or even the thirteenth century Bakhar, and the inability to say when the names of Mansura, Debal, and Alor are mere echoes from the dead is no less bewildering than the abruptness with which a Bahmanabad or a Damrilah disappears. In repeating *in parvo* these main characteristics of a larger stage, Debal succeeds in offering us the tragedy of problems that baffle solution, and the comedy of errors in solving them.

In the long drawn controversy as to the identity of Debal and its location there is no small element of humour. Great is the irony of assumptions that have justified both a location at Karachi and near Tatha; and the interpretation of record that has made Debal in succession an inland town, a port upon the sea, a town upon the Indus and a distant neighbour thereto. Among the many locations[1] of old Debal as a separate port there is none not based upon an initial error of assumption, or an erroneous reading of record, and almost all are vitiated by the assumption that the delta has always been

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[1] Locations of Debal gather round Tatha or Karachi. Those that are impressed by the sterile surroundings of Debal, and seek a coastal port on the assumption of an unchanged delta place it near Karachi. Bomburah (Hughes, Ranking) Karachi (Elliot); vicinity of Karachi (A. Burnes, Elphinstone). Others follow native tradition and find it in Tatha (Burton, Pottinger, Sir A Burnes, Capt. MacMurdo, Deda Rochetto, Rennell W. Hamilton). The same sites have been given to Debal and Bahmanabad though both places are mentioned in the Chachnama (*e.g.*, Tod's Tatha; Sir A Burnes' Kalankot; Wood's Tatha). More independent locations are Haigh's Kukar, Bukera 20 miles S. W. of Tatha apparently assumed proven by Daraes; Raverty near the shrine of Por Patho at the foot of the Makli hills. Raverty identifies Sindi and Debal. Cunningham and Foster identify it with Lahribandar, Damos makes it a joint port with Sindi.

The errors of assumptions in these locations are many. Major Haigh assumes that all the deltaic ports were originally inland, and so locates Debal by calculation of measurements given by the Arabs from other sites and as he regards them from the river's mouth inland. Yet Ibn Haukāl puts Debal upon the sea and Ibn Batuta Lahori upon the sea shore.

Cunningham assumes that Debal was on the Indus—Sequitar his identification with Lahribandar or ruins nearby yet the Iskakhari puts it west of the mouth of the Mihran as does Ibn Haukal. Al Idrisi puts it six miles west of the month and earlier than all Al Masudi puts it two days' journey west. From Hamilton's naming the Indus' Divellae or seven mouths' he makes the inconsequent deduction that the river of Lahribandar and that of Debal are one. Elliot places Debal near or at Karachi on an assumption that the delta has ever been as it is. This compels him to seek a sterile hinterland near the sea to suit the position of old Debal on the sea and the descriptions given of its surroundings by the Arab writers. Cp. Ibn. Ḣaukal.

Debal is a confined place (barren) but for the sake of trade people take up their dwelling there. They cultivate the land without irrigation.

Debal is a populous place but not fertile, and is inhabited merely because it is a harbour for the vessels of Sind and other parts. (Al Idrisi.)

When Rai Dahir heard of its fall (711 A.D.) he made light of it saying it was a place inhabited by low people and traders.

M. L. Dames (*vid.* Duarte Barbosa) makes a joint port out of Deval and Sindi and puts Dewal where Haigh places it. Lahribandar he puts in the extreme east of the delta. Reasons for any one of these locations which result in accepting as separate towns each and every of the places mentioned in record are not given. As I have shown in the text Lahribandar could never have been in the alluvial east of the Delta.

The maps of the seventeenth and eighteenth centuries have a location of Deval which is comparatively unbalanced by written record. Barbosa puts Diul in the sovereignty of much as it is to-day. Equally confusing are the respective identities of Tatha, Debal, Sindi, Lahribandar, and the solutions offered to reduce their number; the common but now discredited identification of Tatha and Debal; that of Debal and Sindi by Raverty; of Debal and Lahribandar by Cunningham and Foster; of Sindi and Lahribandar by Irvine and Yule, and again the recognition of all four by Mr. Dames. The very mass of error and conflict alone would justify an attempt to reach simplicity.

By way of introduction to a subject with many difficulties, let us turn to a century, the seventeenth, in which we have happily a fund of contemporary evidence as to the identity of the ports of the Indus delta, from travellers and historians who write of personal experience. The author of the Tarikh-i-Tahiri went to Tatha in 1606 A. D. for his education and at Tatha lived part of his later life. In 1635 the 'Discovery' landed Fremlen and Forder at Laurebandar: in 1654 Tavernier arrived at Sindi at the mouth of the river: one year later Manucci landed at the port of Sindi and thence reached the towns of Sindi and Tatha: in 1699 Hamilton travelled with peril, for his caravan was attacked, from Lahribandar to Tatha. In addition this century furnishes the reports of the East India Company's factors at Tatha.

Now all these authorities agree in describing one port only other than Tatha, with factories of two or three

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Persia; Hamilton puts Debal in Makran the former incidentally makes the Indus come from the Euphrates and the latter makes it enter the Gulf of Cambay. In maps it is frequently located in Makran. The location is inseparable from the erroneous idea that the river of Debal was a different river from the Indus—Sir Thomas Roe corrected the error; Garcia da Orta almost a century earlier wrote that the Indo is called by the natives Diul, yet Mandelslo refused an identification of Van Sinschoties Aio de Diul with the Indus and Debal continued to be put in Makran with a river of its own up to the nineteenth century. A location based upon a belief that the Indus entered the sea in the Gulf of Cambay, and upon recollection that the hinterland of old Debal was desert and that this was not to be found in the alluvial precincts of the later parts, is an extravagance of tradition that does not call for detailed criticism.

nationalities. The distances of Lahribandar from the sea, and again from Tatha given by the Tarikh-i-Tahiri, by Fremlen, and Hamilton are too similar to those given by Manucci to Sindi to make doubtful an identification [1] of Sindi and Lahribandar. A further simplification of the number of ports is a result of the various reports made of the landing [2] of Sir Robert Shirley and others in Sind in 1613 A. D ; for Paynton the master of the ship that carried them names the port Diul ; Kerridge reporting a little later the landing calls the port Laurebandar, as does also Withington, who on hearing of the same proceeded overland from Surat in an ill-fated attempt to help the new arrivals. The

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[1] Sindi as Lahribandar.

Tarikh-i-Tahiri.	Lahribandar	one day from sea, two days from Tatha.
Fremlen.	„	14 miles up river.
Hamilton.	„	Six leagues from sea, forty miles.
Manucci.	Sindi	12 hours up river 36 „

Sindi is put by Terry (1618) at the mouth of the main current of the river, *i.e.*, at the mouth of the same branch as Lahribandar. Fordor describing landing at Bandarlarrye says they sighted high rugged land to the west of Cindy (1635). There was possibly a small anchorage called Sindi or something like it at the very mouth of the river ; Manucci writes of Dara Shukoh crossing the river from the port to the town of Sindi ; John Spiller (1646) writes from Sindy Road which is distinct from Lahribandar (Bandar). Others locate a small village at the actual mouth of the river, *e.g.*, Tarikh-i-Tahiri. Sommiani ; Fremlen a poor fisher town ; Hamilton puts a Sindi Tower at the mouth. Fremlen has also a. 'Sinda Road.' distinct from Lahribandar. No oriental historian to my knowledge uses the title Sindi as the name of a port ; by Europeans it is frequently used to indicate Tatha and Lahribandar alike (vid. The English Factories in India, W. Foster, 1618-94] and occasionally an anchorage but not areal port at the mouth of the river.

Paynton calls his Diul the Lowrebandar of Kerridge and Withington also, Diulsinde. Thevenot is also Diul-Sind. Sidi Ali Kapudan identifies Lahori and Diul Sind.

[2] 'In November 1613 the Expedition arrived at Laurebander the port of Sinda and there disembarked Sir Robert Shirley and his company...Letters Received by the E. I. Co., Vol. II, No. 165. Thomas Kerridge to the E. I. Co., 20th September 1614.

'Boats were sent from Diul for conveying to the ambassadors good and people...Tata, a great citie one dayes journey from Diul, both cities standing in the Great Mogolls Dominions the ship was riding about four or five miles from the River's mouth from whence they had fifteen miles to the city or town of Diul...they went through the city to the castle." The party proceeding from Diul to Tatha were brought back and 'carried away prisoners to Diulsinde.'

evidence, in fact, that Lahribandar[1] was the only deltaic port at this time other than Tatha is overwhelming. Its pre-eminence is shown by Mir Ma'asúm's inscription of its name, as one of the dependent cities of the Emperor Akbar in a recess cut in a hill of Kandahar and at least the importance of its position by the reservation to the Emperor of Hindusthan of its castle town in the Treaty of 1739 with Nadir Shah.

Still more than this the record of this century permits of a location of Lahribandar with every appearance of probable accuracy. The landing from the 'Discovery' of Fremlen and Forder gives us a description of the river's mouth near Lahribandar; we are told that before reaching anchorage they sighted high cliffs that in the light appeared to the west as chalk cliffs, and passed an island entered in the charts as 'Camel' the coast itself at the river's mouth low-lying without a distinguishing feature save a single tree. Over sixty years later Hamilton in very similar manner describes the difficulty of finding the mouth of a river, which had only a whitened tower over a tomb as a guiding mark; and adds the further information that the port had a fort mounted guns, to protect its trade from the attacks of Baluchi and Makrani robbers to the west. There are here, accordingly, several fairly precise indications as to the location of Lahribandar; it was within sight of cliffs or hills itself on a formless shore at the mouth of a river that was presumably the river of Debal, as the 'Camel' island can hardly be other than the 'Camello' island that appears in so many maps, and in the early English translation of Van Linschoten at the mouth of the river of Debal. It is quite impossible to satisfy these conditions of location by any situation in the alluvial stretches of the eastern delta; and only possible somewhere along the edge of the rocky desert, that in the Karachi district adjoins on the north the deltaic accretions of lower levels.

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[1] Vid. Information given by Sir Edward Michelborne in interview with Co. as entered in Court minutes of January 26th, 1607-8. 'Lawrie in the Bay of the River Syndur Sir Thomas Herbert Tatha...upon the ocean she has Laurebandar.' John Jourdain, left England in E. I. Co. Fourth Voyage. The Commanders had instructions if Surat was unsafe to have recourse to Laribandar at the mouth of the Indus.

Thevenot distinguishes the most Southern Town Diul, Diul-Sind; 'heretobefore called Dobil' from Lourebandar which is three days' journey from Tatha upon the sea. Thevenot however never visited Sind; Tavernier did at the same time that Thevenot was in India (1665-6), he arrived at Sindi and speaks only of Sindi and Tatha. It is always necessary in interpreting accounts of the deltaic ports to separate the records of personal experience from those of hearsay; Hamilton an authority as to the part he knew between Lahribandar and Tatha is none when he speaks of Debal in Makran, or a second branch of the Indus debouching in the Gulf of Cambay.

In yet one more respect the seventeenth century enables us to reach assurance where so much is doubt. In the extensive use of the name 'Sindi'[1] is a refutation of much error. In 1631 Philip Lukaszoon speaks of the Brouwershaven being sent to 'Tata named Sindi in the charts'; Tavernier speaks of Sindi as the capital of the province of Tatha, *i.e.*, as Tatha itself. Sindi is used by Manucci and Bernier to indicate the town of Lahribandar, and by Manucci a separate anchorage at the mouth of the river. And similar in detail is the use of the name Sinda. Methwold in a letter of 1636 writes of 'Tatha *alias* Sinda,' Kerridge speaks of Laurebandar as the port of Sinda, *i.e.*, of Tatha; Fremlen speaks of Tatha as Scinda; in 1629 the Committee receives a report that Synda (Tatha) is soliciting the Surat president to found a factory there. The same name is also used though not quite so frequently for Lahribandar, whilst when the port of Synda or a ship of Synda is mentioned in the letters

[1] Mir Ma'asum speaks of a hill at Kandahar with a recess cut by order of Emperor Babar. 'When I visited the spot it came into my head that I would inscribe his (Humayun's) name there; as well as that of his august son with their thousands of tributary cities and kingdoms like Kandahar and Kabul. I therefore sent for some stone-cutters and engravers from Bakhar and had the names of these kings engraved with those of their dependent cities and provinces from Bengal to Bandar Lahori, from Kabul and Ghazni to the Dekhan without any omission. It took nearly four years to complete this work.'

'The castle and town of Lahribandar, with all the countries to the east of the river Attok, the Water of Sind and Nala Sankra shall as formerly belong to the Empire of Hindostan' [Treaty of Nadir Shah, 1739].

and reports of the Company's presidents, factors and captains it is not always possible to say whether Tatha or Lahribandar is meant.

Now the Tarikh-i-Ma'asumi is dubbed ignorant by Elliot because its author speaks of Lahribandar and Tatha as both called Debal, but this is at the beginning of the century when there is ample proof that in European use 'Sindi' was similarly employed as a name for these two. This duplication of 'Sindi' also makes seem less strange the statement of the Tuhfat-ul-Kiram that Bandar-Lahori was of old called Bandar-Debal, for with the Persian izafat in its proper place, becoming Bandar-I-Debal, Bandar Debal may mean either the port Lahribandar, *i.e.*, port Diul or Sindi, or again the port belonging to the town of Tatha called equally Debal or Sindi (Sinda).

Yet more than this, this indiscriminating use of the names 'Sindi' and 'Sinda' weakens the conclusion of Mr. Foster that Debal and Lahribandar were one. In support of this conclusion he remarks that in the early English accounts reference is made only to the one (Diul) or the other (Lahribandar), never to both; that it seems incredible that there could have been at the same time two cities at the mouth of the Indus each serving as a port of Tatha, and each containing a Portuguese factory, and that the port which Paynton calls Diul, Withington and Kerridge call Lowribandar. Now Diul is but one half of Diul-Sindi, and if the use of Diul as a name for Lahribandar is support for an identification of these two places, the common use of Sindi (Sinda) the other half of Diul-Sindi, equally justifies an assumption that Debal and Tatha were one.

It is easier now to turn to the detailed record of Debal itself. Of the survival of the name Debal up to recent times there is no doubt. The instructions of the East India Company's Committee to Femell and again to Sir Henry Middleton in 1610 suggest the founding of a factory at

Dabul; Paynton as related above calls Diul the port at which Sir Robert Shirley landed in 1613; Crow the British Agent at Tatha in 1799 writes of Tatha as Debal Sindi and even two ruined sites in the delta of the same. name; Major Raverty[1] the staunchest advocate of the triple identity of Tatha[2], Debal, and Lahribandar quotes the landing of the author of the Jahanara at Debal in 1567, and the statement of the Khalasat-ut-Tawarikh that Debal was the chief port of

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[1] Major Raverty's notes on Debal, Tatha and Lahribandar spite their learning are unconvincing. He places the last on the Bhagar branch of the Indus and accepts its position thereon in the seventeenth century as some 20 miles from the mouth; he emphasises that the Lahari of Ibn Batuta was at a junction of the river with the sea eastward of Debal; he also in places accepts from Al Beruni a distance of twelve farsakhs between Debal and Loharani. Inconsistent with this he definitely locates Debal near Pir Patho, *i.e.*, East of any possible port at the mouth of the Bhagar, and having in one place read the twelve farsakhs of Al Beruni as measured from Debal to Loharani, he elsewhere reads it as between Debal and the most eastern mouth (Kohrai) of the Indus rejecting altogether apparently the reading of Loharani.

His precise measurement of Debal from Tatha is a misreading of Paynton's account, for the latter does not say that Diul was fifteen miles from Tatha but that distance from the river's mouth. His examples of the survival of Debal as more than a name are unfortunate. Sir Thomas Herbert did not land at Diul but at Swalley Road; Paynton's Diul is most certainly Lahribandar as is also Terry's 'Sindee.' Thevenot cannot be balanced against the authority of those who visited Sind, nor the Khalasat-at-Tawarikh against that of the resident historians of Sind.

[2] *Tatha and Debal* :—

Major Raverty who believes Debal existed after the foundation of Tatha can give authentic references to the former up to 1224 A.D., when Sultan Jalaluddin invaded lower Sind. It is then significant that he has no instance of Debal to offer after this date until 1567 A.D., *i e*, on his assumption that Debal survived up to the end of the seventeenth century there is a silence of some 350 years in the record of Debal.

As regards Tatha he assumes from Ibn Batuta's silence as to the existence of Tatha when he was at Lahribandar in 1333-4 that Tatha did not then exist; like Major Haigh he finds the first reference to Tatha in Barni's account of the pursuit to Tatha and the banks of the Indus of the rebel Taghi by the Sultan Muhammed Shah in 1351. Raverty further says that Tatha was founded by the son of Jam Unar who bore the title of Bani-i-Tatha or 'Founder of Tatha' and succeeded Jam Junan in 1349-50 A.D.

Ibn Batuta apparently only describes the places he visited as he kept to the river; perhaps Tatha was a place to avoid in 1333, may be it was not on the river. The existence of a title so distinctive as 'Founder of Tatha' would make very difficult of explanation the subsequent obscurity as to the origin of Tatha, and the crediting of its foundation by the Tarikh-i-Tahiri, the author of which was a Sammah and a resident of Tatha, to Jam Nindo at the end of the fifteenth century. Further than this the Tarikh-i-Firoz Shahi of Shamsi Siraj Afif, the author of which knew the court of the Emperor Firoz Shah if not the sites

Sind in the days of Aurangzeb. The survival of the name, however, does not prove the survival of the city, and of even plausible proof that the city continued after 1350 there would seem to be none. In the seventeenth century there is certainly no reference to a Debal by those who knew themselves the ports of the delta, save by Hamilton, and he placing Debal in Makran beyond the limits of his personal experience, demonstrates that he too knew of no Debal in the delta.

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of his campaign in the Indus delta, says that the brother of Jam Unarana Babiniya (the latter the name that by reason of its many variant readings in MSS. Raverty makes into 'Bani' or 'Founder') were taken as hostages to Delhi, where they had a Tatha palace at their disposal; that the former was sent back to Tatha to quell a rebellion but that the latter never saw Tatha again, as when later he too was sent back with the present of an umbrella, he died on the way: The 'Bani' or 'Founder' thus fades away into a personal name of a chief.

To Tatha I would give a much earlier date than 1350; even than 1333 the date of Ibn Batuta's visit to Sind. To leave contemporary history for the moment there is quite a considerable amount of historic record of various value that associates Tatha with the campaigns of emperors earlier than Sultan Mahomed Shah Taghlak. Badaoni says that the eldest son of the Emperor Ghiyassuddin (1266-1286) conquered Tatha and Damrilah; traditions that connect Tatha with Sultan Alauddin are more numerous; the Tuhfat-ul-Kiram brings in this Sultan to wipe out the Sumrahs; the Tarikh-i-Ma'asumi also brings him to Tatha, whilst to-day there remain as an object of worship at Tatha the reputed tombs of seven royal Sumrah dames who committed suicide rather than fall into his hands. But what is greater than there is the testimony of the Tarikh-i-Firoz Shahi of Shamsi Siraj. Describing the defeat of the Jams of Tatha in 1362 by Sultan Firoz Shah he writes thus: 'Tatha had been a source of trouble to the sovereigns of Delhi ever since the days of Sultan Muizzuddin....The splendid army of Sultan Alauddin had marched towards Tatha, but the difficulty of the enterprise had rendered the attempt abortive.... Sultan Mahammad Shah Taghlak lost his life in the same country.'

Here then is evidence that in the reign of Firoz Shah Tatha traditionally had a history that took it back to the time of Sultan Ala-ud-din (1296-1315) if not into the days of Debal (1182 A.D.); and this evidence with that of Barni is the earliest reference to Tatha.

The Gazetteer of Sind relates that even in 1398 Tatha was not built though historians used the name; apparently the evidence of the Tuhfat-ul-Kiram completed 1767 or later and for the most part a collection of legends is preferred to that of Barni who accompanied Sultan Mahomed Shah to Tatha in 1350.

The Tarikh-i-Firoz Shahi of Barni says Taghi went to Tatha and Damrilah; that the Sultan Mahomed Shah followed with intention of humbling the Sumrahs who had given him protection.

The Tarikh-i-Ma'asumi says Taghi conspired with the Sumrahs, and that Sultan Firoz Shah fought two battles with them before Taghi fled, and he himself was able to retire to Delhi.

When exactly the old Debal ceased to be is not easy to say. In 1205 Nasiruddin Kabajah possessed himself of Sind as far as the coast, but Debal under a Sumrah chief remained in semi-independence. In 1224 the same Sumrah chief left Debal in flight before the Sultan Jalaluddin, and this is, Major Haigh considers, one of the latest if not the latest notice of Debal. It is thus a Sumrah possession that it fades from record, and egomet I have little doubt that the end of Debal is wrapped in obscurity, because it is one incident in that conflict of Sumrah and Sammah which is presented to us in melodramatic manner and with a plentitude of fictions.

Whatever the year in which Debal ceased as a city known to itself, it is significant that it has been left for the nineteenth century to quarrel over its remains. From the middle of the fourteenth century onwards native record has no doubts; no ruins in the delta are pointed out as those of the great Debal, more famous as it had been perhaps as a place of pilgrimage even than as an emporium of wealth, but Tatha is unanimously hailed as heir to the glory of Debal. As one of the cities of the accursed Sumrahs it is hard too to think that, had its days been ended by earthquake, sack or even natural decay, the Sammah historian would have failed to point his inevitable moral, or sing his pæan of victory. The very sites of the Sumrah cities we are told by the example of Muhammad Tut were held accursed; the cultivation of the Sumrahs was allowed to go to waste, and the waste of their time became in turn fertility itself under the Sammahs. There seems therefore no reason why the Sammah should have spared the memory of Debal had it really not survived.

Surviving after the foundation of Tatha Debal must of necessity have been Tatha or Lahribandar, and as the use of Diul and Sindi (Sinda) in duplicate for both Tatha and Lahribandar would support either the one identification or the other, it is on more general grounds that the question must be decided.

In the position I have given to Lahribandar[1], a position accepted by the advocates of its identity with Debal, to assume that at a time when the sovereignty of Sind extended well west of its present bounds, Debal was built forty miles west of the site subsequently occupied by Tatha, is to raise a further question why the greater facilities afforded by the coast of Karachi were neglected although so near. To assume on the other hand that Lahribandar was built as successor to Debal, which an expanding delta had left far inland, is to explain its situation at the mouth of a river still communicating with the more ancient port, for the historic superceding of port by port in the delta is a slow process of succession; the new port is always built ere the old one has entirely decayed, and the inheritance of the past is surrendered gradually.

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[1] *Lahribandar* :

Ibn Batuta visited Lâhari in 1334; he puts it at the mouth of the Sind river upon the sea shore. Beyond saying it has a large harbour he gives of it no detailed description. Al Beruni (or Rashiduddin) in the 'Indika' has a Lahārani for which he gives a synonym Lohaniyah; the Arabic text of the 'Indika' suggests that Debal is in land and on the main highway from Makran to Cambay and a convenient site from which to detail the distances of coastal and other places, interalios Loharani.

I do not know of any subsequent mention of Lahribandar for two centuries. The Tarikh-i-Masumi says the Khan-i-Khanan went to Lahribandar to see the sea, the Tarikh-i Tahiri that the Portuguese who sacked Tatha in 1565 A. D. landed at Lahribandar. Fremlen (1635) writes of it as a well-inhabited town but its houses as built of mud and sticks in a manner that made it a wonder they did not fall; Hamilton (1699) describes it as a village of a hundred houses of mud and crooked sticks but with a large stone fort.

Between 1334 when it was on the sea and the sixteenth century it had shared the fate of all the deltaic ports drawn from an advancing delta. Though loosely described often by the Company's servants as at the mouth of the Indus it was at the beginning of the seventeenth century already some 14 miles from the sea, and a small village on the coast had a guard and Mirbandar which regulated the passing of vessels of the river. Communication by the river with that village or higher up with Tatha remained difficult; the Tarikh-i-Tahiri describes the communication with the sea as a small unfordable channel. Fremlen writes of the dangerous bar that was really only passable when the land winds between October and mid-February kept it smooth; Spiller (1646) reports the difficulty in getting goods in boats from Tatha to Lahribandar as until the tide is met half-way between the water in places is not a foot deep and boats have to be drawn by mere strength on poles; Meshwold alludes to it being more frequent for boats to come down from Tatha to Lahribandar than to go upstream.

The importance of separating the records of experience from those that perpetuate traditions of the past is very clearly demonstrated by the conflicting accounts of the an-

There remains the identification of Tatha and Debal, and in this regard the evidence of native history has been somewhat unfairly treated, for in scorning the evidence of the Tarikh-i-Ma'asumi and the Tuhfat-ul-Kiram, the duplicate use of Sindi and Sinda was forgotten, and the perils of the Persian izafat were not avoided. In crediting moreover Ferishta with the sin of misleading generations, the weight of evidence in his support has been overlooked, for the evidence that reads backwards into the times of old Debal the name of Tatha evincing as it does a prevalent belief that the two were one—is not even confined to those that wrote on Sind, and without going into the respective value as historical material of this or that record, it is sufficient to appraise rightly the mass of testimony to a belief that Tatha was Debal.

Before Ferishta there is Abu Fazl who makes Tatha synonymous with Debal, and puts Lahribandar in the sirkar of Tatha; there is Mir Ma'sum who recognises only Tatha and Lahribandar with the common appellation of Debal. In the Bhatti annals Tod has given evidence from the bardic history

chorage and harbourage afforded by Lahribandar in the seventeenth century. The dangers of its approach are constantly emphasised in the reports of the Company's factors; ships that lie there again are 'subject to the worm'; Tavernier (February 1654) was compelled by high seas to have the anchorage and seek moorings six leagues away; the English ships (1635) could not find their way in without the aid of Portuguese frigates, against all this unmistakable proof of the difficulties and dangers of the anchorage of Lahribandar there are accounts that I think merely represent a literary survival of traditions when Lahribandar had as it had in centuries before a fine harbour. The only other explanation of conflicting accounts is to assume a great change in a few years. At the beginning of the century Sir Edward Michelborne (1607-8) informed the Company that 'Laurie' had a 'good Harbor in saffetie'; Nicholas Withington writes that it has 'a fair road without the river's mouth, clear of worms' and Thevenot (1666) says it has 'a better Road for ships than any other place in the Indies.'

Yet the evidence as to the silting up of the river's mouth is considerable. Aurangzebe attempted to open a new port, which Spiller and Scrisener (1652) name Cuckerhallah. In the very same year that Thevenot landed at Surat, Tavernier landed in Sind; he describes the dangerous shallows formed by silt and testifies to the decay in the trade of Tatha. In the latter respect Thevenot endorses his account of the diversion of the river traffic that erstwhile went from Lahore to Tatha; of the partial decay of Lahore and Multan in consequence of the damage done to trade by the extra cost now entailed in taking goods *via* Agra by land from Lahore to Surat.

of Jasalmir of the application of the name Tatha to a capital of the twelfth century. In the *Ras Mala* again Forbes has collected many a story that carries Tatha back even to the days of Bahmanabad. The Munatakhabu-i-Tawarikh is yet another example of this backward reading of history, for long before Tatha was founded it speaks of that city in the thirteenth century where other authority would have written of Debal; and definitely alludes to the synonymity of the two.

One might, in fine, multiply much illustration of the belief that Tatha was Debal, but this evidence has been so generally discredited of late that any independent corroboration of it is welcome. Now Debal fades away from record coupled mysteriously with the name of Damrilah,[1] and as a stronghold of the Sumrahs, and it is therefore singular that Tatha in its early historic mention is likewise coupled with the same Damrilah, and first appears in connection with the Sumrahs. For the incident of the flight of the rebel Taghi from Gujrat to Tatha and Damrilah as given by Barni, who accompanied the Emperor Mahamad Taghlak in his fatal advance to the Indus, provides this continuity of detail which can hardly be accidental.

To the evidence that Tatha the Sammah capital of lower Sind was at one time a Sumrah possession; that it is first mentioned with Damrilah as was Debal, another Sumrah city; that of its founding there is no more authentic record than there is of the end of Debal; and the discovery by Mr. Cousens on the Makhli Hills of the remains of a fine Hindu temple and it is difficult to avoid a conclusion that here was really the Debal of old.

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[1] Damrilah is one of the puzzles of Sind record. Like Bakhar it does not appear till the 13th century. It then invariably appears coupled with Debal; so coupled it is mentioned by the Tabahat-i-Nasiri, the Jahan Kusha and the Jamiut Tawarikh of Rashiduddin; when Tatha first appears in Barni's account of the Emperor Mahomed Shah's pursuit of the rebel Taghi into Sind, it is equally strangely coupled with Tatha. I know of no instance of its mention alone by any writer of the thirteenth and fourteenth centuries though the Muntakhabu-i-Tawarikh of Badani writes of the conquest of Damrila by the eldest son of the Sultan Ghiyasuddin. Major Raverty in one passage identifies it with the ruins found by Ibn Batuta near Lohari, an identification made impossible by the later mention of Damrilah in the account of Taghi's rebellion; elsewhere he places it near Shakhrpur in the Shekbandar sub-division, where local traditions certainly still point to the debris of the residences of Sumrah chiefs among them of Chanisar whose name history and legend alike associates with Debal.

And now in envoi to touch finally upon the confused identities of Tatha, Lahribandar, Sindi and Debal. Mr. Dames the latest writer (1918) to theorise upon their respective sites, makes of Lahribandar a port in the far east of the delta, and of Debal and Sindi a joint port on both sides of the western estuary of the river. In the record of the maps of the seventeenth and eighteenth centuries, indeed, support can be found for even this solution which the whole weight of written experience would seem to render highly improbable.

It matters not for the moment whether Tatha was Debal or not; it suffices that the Ain-i-Akbari, the Tarikh-i-Tahiri, the Tarikh-i-Ma'asumi and the Tuhfat-ul-Kiram; of these three acquainted with Sind, and two residents of the delta, recognise no Debal apart. It matters not equally whether Sindi is Lahribandar or not, it is enough that no single traveller or factor who knew the Indus' mouths alludes to more than one port subsidiary to Tatha. Paynton may have his Diul; Tavernier and Manucci their Sindi, Hamilton and others their Lahribandar; the quotient remains the same—one capital and one port. And over these hangs a common name, for Sindi is but a name in duplicate; the silence of native record as to the existence of any port of that name when Europeans speak of it so freely must be conclusive.

The problem of the deltaic ports that looms so intricate as one examines the maps of the early editions of Bernier, as one follows the location of Lahribandar now east and now west now south of Tatha, as again bemused and bewildered one attempts in vain to fix even the approximate position of duplicate names, is in fact the simpler one of deciding whether, after the foundation of Tatha the ancient Debal survived in Tatha or in Lahribandar. And though it may be that there was no survival into the fourteenth century, but that Debal fell in the conflict of Sumrah and Sammah, if it survived the probabilities seem considerably stronger that it was Tatha than Lahribandar. To place much weight upon the details of Al-Beruni's account of the Delta is perhaps rash, but the 'Indika' mentions Lahribandar and Debal at the same time, and the distance given from the one to the other of twelve farsakhs is that which Manucci and Hamilton place between Sindi or Lahribandar and Tatha. But beyond this there is nothing in the location of Lahribandar near the Kohistan that suggests the sanctity of ancient Debal, whilst around the Makhli Hills contiguous to Tatha, there linger to-day traditions of Buddhist times, that still provide a locus genii, whilst their summit carries memories of a great temple such as might have graced Debal.

J. Abbot.

ITINERARY OF OU-K'ONG[1] (751-790)

(By Dr. SYLVAIN LE'VI and E. CHAVANNES : *a translation*)

[It is a pity that the average Indian student is not familiar with the names of Chinese Travellers, besides those of Fahien, Hiuen-Tsang and It-Sing. There were other travellers who came to India from China. Of these, Dr. Lévi has published accounts of Wang Hiuent'se and Ou-K'ong. In the present paper, we give the account of Ou-K'ong who came to India in the second half of the eighth century A.D. We hope that our readers will find much new information in this account of the travels of a Buddhist Pilgrim.—*Translator.*]

Introduction

The Japanese Edition of the Tripitaka offered to the *Société Asiatique*, by one of its old members, M. Ryauon Fujishima, contains a good number of new texts, which do not figure in the Chinese Editions of the Buddhist Collection. They are incorporated in the Edition of Corea, some copies of which are still preserved in Japan. (V. Bunyiu Nanjio, A Catalogue of the Chinese Translations of the Buddhist Tripitaka, Oxford, 1883, Introd., p. xxiv). In Volume XV of the box XXII is found a Sûtra, unknown till now : *the Daça-bala-sûtra*. That text, very short, hardly of a page and a half, is preceded by a long introduction, entitled—*Ta-t'ang-tcheng-yuen-sin-i-che-ti-teng-king-ki*—" Memoir on a new translation of *Daça-bhumi-sûtra*, etc., executed in the *Tcheng-yuen* period (785-804) of the great *T'ang* Dynasty." The author proposes to relate the circumstances which justify and explain that translation and which guarantee its authenticity : he is thus naturally led to recount the biography of the personage who brought the original Sanskrit texts to China. The monk *Ou-K'ong* who at first bore, in the order, the name of *Fa-kie*

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[1] It appeared originally in the *Journal Asiatique* in 1895 (Sept.-Oct.).

(Dharma Dhātu), was born in 730, started in 751 to the Western countries and returned only after an absence of 40 years (790). In the interval, he visited Central Asia, and India, as a zealous pilgrim rather than as an intelligent observer. Not a good scholar without doubt, he was obliged to apply to others for interpreting the sûtras, which he brought, as well as for writing his reminiscences, and for improving his titles. His long travels have been not a little instructive. He has seen much, but he has not retained much. Though his notes are meagre and dry, yet they do not fail to interest us. They give us a glimpse into the state of Central Asia in a troubled and obscure period. They illumine the unexpected prosperity and vigour of Buddhism in those regions on the eve of the day when the faith disappears. They reveal an All-Turkish supremacy, which can hardly be suspected, even over the border of India and of Afganistan. If *Ou-K'ong* remains far behind *Hiouen-Tsang* and even *Fahien*, his biography at least forms a precious complement and a natural sequel to the gallery "of eminent monks who went to search for the law (Dharma) in the western country in the time of great *T'ang* Dynasty."

Song-kao seng-tchoan (*Catalogue, Nanjio, 1495*) gives in Chapter III, 13th biography, a notice about *Ou-K'ong*, evidently extracted from the Memoir, which we translate. The same compilation gives in Chapter XV, 19th biography, an exhaustive notice about *Yuen-Tchao*, the author of that memoir.

The new translations of *Che-ti-king* (Daça-bhumi Sûtra), of *Hoei-hiang-luen-king* [Bhavasamkrārti (?) Sûtra] and of *Che-li-king* (Daça-bala Sûtra),[1]—it is the çramana *Ou-K'ong*, whose original name was *Fa-kie* (Dharmadhātu), and who is a monk of *Tchang-King* temple, of the superior capital [1] who brought them from Central India, at the time of his mission in *Ki-pin*. The master was a native of *Yun-yang*, in the district of the capital. The surname of his canton was *Ts'ing-long* and the name of his village was *Hiang-i*. His name in the society was *Kiu* ; his appellation was *Fong-tch'ao.* He descended from the family of the posterior *Wei* [2] Heaven had given him intelligence ; he had resolved to honour the ancient writings.[3] As showing his filial piety and fraternal love, he maintained his family. With fidelity and sincerity he served the state. He found *Hiuen-Tsong*, the Emperor, very reasonable, very much holy and greatly intelligent, governing the Empire with filial piety ; ten thousand kingdoms there took pleasure in his heart ; in eight directions of space, all declared to be his subjects ; the barbarians of four cardinal points re formed themselves with respect.

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[1] *Che-ti-king*= "the sutra of the ten earth," perhaps *Daça-bhumi-sûtras*, was translated before in Chinese between 384 and 417, by Kumārjiva and Buddhayaças in collaboration, under the title of *Che-tchou-king* (Nanjio, 105), and formed a section of *Buddhāvatamsaka-Sûtra* [(Ch. XXII. in the translation of Buddhabhadra (Nanjio, 87) and Chapter

At that time, the kingdom of *Ki-pin* desired to rely for its support on the holy *T'ang* dynasty and sent the great director *Sa-po-ta-kan*[4] with the superior *Che-li-yue-mo,* native of the same kingdom (of *Ki-pin*).

XXVI in the translation of Çikṣānanda (Nanjio, 88)]. But it is found designed also under the title : *Ta-fan-kouan-p'ou-sa-che-ti-king* in Sanskrit *Maha-vaipulya-bodhisattva-daça-bhumi sûtra*, another work translated in the time of *Wei* of the *North* (386-534) by Ki-kia-ye and Tan-yao (Nanjio, 103) and translated before by Kumārjiva (384-417) under the title of *Kouan-yen-p'ou-t'i-sin-king*—Bodhi-hṛdaya-vyuha-sûtra.

Che-li-king = the sûtra of ten forces is the *Daça-bala sûtra.* The catalogue of Nanjio does not mention the Sûtra under that title. The work enumerates and defines the ten characteristic forces of Buddha. The list corresponds exactly to that of Mahā-vyutpatti, § 7.

[1] The superior capital was *Tch'ang-ngan.* It was opposed to the western capital which was *Lo-yang.*

[2] The posterior *Wei* are a dynasty of Turk race, which had *T'oba* as family name. They reigned in Northern China from 386 to 533 A. D.

[3] Word for word it means : to honour *Tien* and *Fen.* It is an allusion to the ancient books called the five rulers (or Tien) and three tombs (*Sam-Fen*) which pass for the five Emperors and three anterior sovereigns of the first dynasty.

[4] The name of that dignitary is written *Sa-po-yuen-kan* in *Song-kao-seng-tchoan.* *Ta-kan* appears to be good orthography, for, it is found in the name of other functionaries.

In the ninth (*T'ien-pao*) year, the year in *Keng-yu* sign (750 A. D.), they came to the royal court and expressed their desire. They demanded an alliance, and proposed that some one should be sent to inspect and observe their country. Accordingly, in the following year, the year in *Sin-mao* sign (751 A. D.), the Emperor *Hiuen-Tsong*, ordered the eunuch *Nei-se-po*[1] *Tchang T'ao-koang*, [of the bureau of the Officer of Interior Affairs, and honoured with the red sheath (of a bow) in the shape of a fish,] to take the presents for accrediting him and to start for that country. He was officially given an escort of forty men. It so happened that, the imperial favour conferred on *Fong-tch'ao* (our monk) the title of Assistant officer to the commander of the Guards (of the four gates of *King-tcheou*), but with the same rank as a regular officer. Following the ambassador, he took the way of *Ngansi.*[2] He then arrived at the kingdom of *Sou-lei*[3] then he passed the mountains of Oignons.[4] Through the passes of *Yang-yu*, he reached the kingdom of five *Tch'e-ni*[5] (also called *Che-ni*) of the valley of *Pouo-mi.*

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[1] The terms *Nei-se-po* design a charge of eunuch.

[2] In the *Ti-li-tche* chapter of the History of *T'ang*, the territory of *Ngan-si* is mentioned as forming part of the region of *Long-yeou*. It comprises the oriental Turkestan. At one time, Persia itself was nominally dependent. At the time of *Ou-k'ong*, *Ngan-si* was divided into four garrisons, which were :—Kutche, Khoten, Kachgar and *Tsoei-ye* (or *Sou-ye*, at present *Che-pa-r-t'ou-ho-tche*, at the eastern extremity of the lake Issyk-kul). The residence of the governor of *Ngan-si* was at *Kut-che* (*cf. Si-yu-t'ou-tche*, Ch. XV, p. 8).

[3] Kachgar, *cf.* H. T. III. 219.

[4] Belur-tagh, *cf.* H. T. III. 194.

[5] The kingdom of *Tchè-ni* or *Che-ni* corresponds to the country which *Hiouen Tsang* named *Che-k'i-ni* (III, 205) which Vivien de Saint Martin identified with Chaghnan. It is said in the History of *T'ang* (Ch. CCXXI, 2nd part, p. 8). "The kingdom of *Che-ni* was also called *Che-k'i-ni* or *Che-ni*. It is at 9000 *li* in south-west in straight line with the capital ; to the eastern side, it is 500 *li* away from the residence of the guardian of *Ts'ong-ling* (*i. e.*, the Chinese officer the guard of the frontier of Belur tagh); at 300 *li* towards the south, it connects the country of *Hou-mi* ; at 500 *li* towards the North-west it touches the country of *Kiu-mi*. Originally its capital was in the city of *K'ou-han*, but afterwards, inhabitants dispersed and lived in mountain-gorges. There are five chiefs of gorges, who claim the authority. They are called five *Che-ni*. That territory is of 2000 *li*. It does not produce five corns. The people of the country loved to attack and plunder the merchants, gradually were left to serve as caravans of four gorges of

Then he reached the kingdom of *Hou-mi*,[1] then the kingdom of *Kiu-wei*,[2] then the kingdom of Ho-lan.

Then he arrived at the kingdom of *Lan-so*,[3] then the kingdom of *Ye-ho*, then the kingdom of *Ou-tchang-na* [4]

Pouo-mi (Pamir)." This passage of the History of *T'ang* explains the expression which we find in the account, five *Tche-ni* of the valley of *Pouo-mi.*

[1] A note of *Hioun-tsang* (III, 201) gives the name of *Hou-mi* as the native designation of the kingdom which the pilgrim named *Ta-mo-si-t'ie-ti.* Vivien de Saint Martin identified it with Matotch. However, *Si-yu-t'ou-tche* (Ch. XVII, p. 12) placed the ancient state of *Hou-mi* on the plateau of Alai or Ala-djul, in Pamir. That country is watered by Kizilsu, which further down takes the name of Surkhab, then of Waksh + finished by falling in Amou-Daria. The principal past which communicates it with Kachgarie is that of Terek: it is perhaps this neck which is here designed under the name of *Yang-yu.*

According to the history of *T'ang*, Ch. CCXX and of *Hiouen-Tsang*, the country of *Hou-mi* had the form of a long strip, very narrow, of 1600 *li* from East to West, about 4 to 5 *li* from North to South (it is by inadvertence that Julien wrote 4 to 500 *li*, III, 201). *Hiouen-tsang* says that the capital of the kingdom is *Hoen-t'o-to*, but the history of *T'ang* places it at *Han-kia-chen*, or according to same editions, *Sia-ria-chen*, to the south of the river Oxus. During the *Hien-king* period, 656-660, says the history of *T'ang*, that country was attached to China under the name of department of *Niao-fei* and the governor was called the king *Cha-po-lo-hie-li-fa.* In that name *Hie-li-fa* should be a title, for we find that word in the name of many other kings, *e. g.*, in those of kings of *Kou-tou* and of *Sie'-yu*; *cf. Tong-chou*, Ch. CCXXI, II part, p. 8. Afterwards the kingdom of *Hou-mi* fell under the domination of *Tou-fan.* In 120, the Emperor conferred a warrant of investiture to the king *Lo lu-i-t'o Kou-t'ou-lou To-pi-le Mo-ho-ta-mo-sa-euls* in this word, the three syllables *Kou-t'ou-lou* are the regular transcription of the Turkish word *Kutluk* = happy. In 728 that king sent some presents to the court, at the same time as the prince of *Mi* country *Mi-hou-han*, *i.e.*, Khagan of *Mi.* In 729 the high dignitary *Ou-hou* and *Ta-kan* = transcription of the Turkish title darkhan came to the court. At the death of the king, his cousin *Hou-tchen-tan* succeeded him. In 741 he personally came to the court. *Hou-mi* remained all this time attached to the Tibetans; but in 742, the son of the king, *Hie-ki-fou* asked to be united with *T'on-fan.* In 749 (*Hon*) *Tchen-pan* came to the court, where various titles were conferred upon him. In the following year, he sent an ambassador. Lastly, in 758, the king *Ho-che-i-kin-pi-che* came to the court and received the name of *Li*, which incorporated it to the imperial family.

[2] *Kiu-wei* is given in the history of *T'aug* cited by Remusat, *Remarques sur l'extension de l'empire chinois du coti de l'occident*, but we have not found that passage in the text indicated as another name of the kingdom of *Chang-mi*, V. *Hiouen-Tsang* under this name III, 206. *Chang-mi* or *Kiu-wei* corresponds to modern *Chitral. cf.* Rimusat, *Nouveaux milanges*, I, 255. "The capital is called *A-che-iu-sse-to*; it is situated in the great mountains of snow (Himalaya) to the north of the river *Pho-liu* Purout."

[3] The sign *So* should be substituted by the character *Po*, which can hardly be distinguished from it and which often confounds with it. It should then read *Lan-po*, as with *Hiouen-ts'ang*, II, 95. *Lan-po* or *Lampāka* responds to the actual *Lamghāna.*

[4] H. T. II, 131. Remusat has translated from *Pcen-i-tien*, the section on *Udyāna* country, in a note of *Foe-koue-ki*, Ch. VIII, n. 1, pp. 47-59. Besides a long extract from

(also called *Ou-tch'ang* and *Ou-tch'an*), the kingdom of *Mang-ngo-p'o* and the city of *Kao-t'eou*, then the kingdom of *Mo-tan* then the city of *Sin-tou*, (Sindhu, Indus) [it is near the river *Sin-tou*, it is also called *Sin-t'ou* or sometimes the city of *Sin-t'eou*].

On the 21st day of the second month of the twelfth year (marked with *Koei-se* sign, 753 A. D.) he arrived at the kingdom of *K'ien-t'o-lo* (the correct Sanskrit pronunciation is Gandhāra (H. T., II, 104), it is the eastern capital of *Ki-pin* (Kashmir).

(*To be continued*)

PHANINDRANATH BOSE

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the travels of *Song-yun* and of memoirs of Hiouen tsang, that chapter contains notices on Udyāna in the history of Northern *Wei* and that of *T'ang*. There came the ambassadors in 502, 511, 518, 521 and 642. In 642 the reigning prince was called *Ta-mo-yn-t'ouo-ho-se*. It seems, according to a text of the History of *T'ang*, that *Ki-pin* in that year had *Ho-hie-tche* as its king. Udyāna and Gandhāra would, therefore, at that time, form two separate kingdoms. However, a reading of the ancient history of *T'ang*, which mentions the king *Ho-hie-tche* in 658 and not 642, prevents us from drawing from that text, a conclusion of absolute certainty. In 719, the kingdom of *Ou-tchang*, in the neighbourhood of Cachemire, is mentioned among the states whom the fear of Arabs drove to rebel against China. In 745, the union of Gandhāra and Udyāna is an accomplished fact, for we read *T'ang-chou*, Ch. CCXXI, 1st part, *ad fin* that in *P'o-P'o* (*tchoen*) date, the king of *Ki-pin* was authorised by the Emperor to take the title of "King of *Ki-pin* and of *Ou tchang*."

INDIA'S PERIODICAL WINDS KNOWN AS MONSOONS

NORMAL WEATHER CHARACTERISTICS.

In India the seasons are—(1) the cold weather from October to March with some rain brought in by variables from the West into the North-West corner, and little rain known as X'mas rain from the East into Upper India; (2) the dry summer lasting from April with hot winds from the West over the Rajpūtana desert, blowing into June that is till the advance in strength of the South-West monsoon; (3) next the wet summer lasting generally to the end of September. Their periods are marked respectively by the Equinoxes of 22nd September and March 21st, by the Summer Solstice of 21st June and in respect to (3) to the Equinox of September 22nd.

There are said to be two monsoons, well distinguished by diametrical change of direction—the main South-West and the mild North-East, styled by some writers the summer and winter rains respectively, but the latter is only recognised in the South Madras Presidency and Ceylon; it is really no "monsoon" being the trade wind free to resume normal blowing which coming over the rather warmer waters of the Bay of Bengal are stopped and condensed by the Eastern Ghauts: in Ceylon its rainfall from September to November is 30 inches. Indians call the main, *Bursat ka mousum* and the duration of its season *chowmassa,* or the four months.

The cold weather in the North-West corner of the country which is outside the monsoon region, has what are styled Western Disturbances by meteorologists that give light rain rather frequently there, accumulate snow in the Kashmir Himalayas besides producing Nor'Westers which blow down to the head of the Bay of Bengal, by the way raising the March dust and cooling the nights, although without rain.

These misnamed Disturbances often continue intermittingly entering till the "Advance little monsoon" (*chota bursat*—vern.) comes, the two welcomely moderating the Hot Winds (*Loo*) of the central parts. The Western Disturbances belong to the winter rain of Europe, extending along the continuous West to East mountains of Persia, etc., the variable really from the Altantic over the Mediterranean and is stopped by the diagonal Himalayas and turned down parallel to their line of direction.

The *chota bursat* is first in evidence as a marked regularity about 21st March, again last in evidence as the "Retreating Monsoon" (*Hattia*—vern.) about the end of October in the North-East corner, Assam Province, where the heaviest rainfall in the world has been recorded since 1842; it is familiar in the eastern half of India too from April until showers about 20th June show the South-West is in force in the country generally. The last snowfalls occur up to the Vernal Equinox in the Himalayas, western. If heavy and late Blandford supposed this circumstance delayed the South-West monsoon—" the snowfall theory " this, that was to replace the old popular " Furnace Theory " which could not explain the absence of the monsoon occasionally. His successor, vainly also, patronised " troughs of depression," " baric gradients " ; all the time laymen on the spot with the thermometer at 114° in the shade, Humidity only 12 in early June, instinctively feeling that the monsoon is on a vast scale after the style of land and sea breezes, while the amateur had discerned the similarity of Rain and of Dew causations, and knew that within the Tropics in summer the barometer is unreliable. Blandford's tentative theory, founded on a coincidence or two, seems maintained in the official Annual Forecast, Snowfall Returns are never omitted as some guide, and it is therefore necessary to point out that the Kashmir Himalayas are far from the Tropic of Cancer, the Punjab is directly outside the monsoon region, its late rain in July led up from the Gangetic Valley and Arabian Sea currents in combination is the normality. The question actually is one of strength of the monsoon anywhere in the country, and the Tibet Expedition 1903-04, headed by Col. F. Younghusband, furnished the experience that the eternal snows even permit the monsoon in July—August to reach Lhasa, an experience which besides dispelled the old Travellers' Tales that it did not roll on over the fixed height of 10,000 feet above sea-level.

The monsoon proper breaks or "bursts" at the lowest point, Ceylon about May 26th; it is there conveniently divided into the Bay current and the Arabian Sea current (*current* being inexact terminology); the former is the stronger by reason of favourable position over the open expanse of Ocean, and extends to Burma, Indo-China, Eastern or Coastal China and up to the Japanese Islands often. At the head of the Bay the direction is northwards through geographical enclosure and on squarely to the wall of the Khasia Hills, only 150 miles off, where being cooped up portion of this great current is forced North-West up the plain of the Ganges or "Valley of the Ganges." The Arabian having the Indian Ocean foreshortened by the African coast is less, though below the Konkan has nearly the strength of the other, and is directed chiefly to the Western Ghauts and on to Lower Burma; the two currents Gangetic and Arabian blend in Central India on the Malwa plateau, the inlet for the latter, being the Nerbudda and Tapti Valleys.

The beginning and ending of the monsoon may be marked by electricity, yet between there is surprisingly little of thunder-storm characteristics, clouds drifting low yielding plain rain being the phenomenon.

The foregoing normal weather providentially provides agricultural countries with two bumper seasonal crops, as well as ensures that the public health is excellent.

ABNORMAL SEASONS.

But the Western Disturbances may be late in entering or soon cease, when the hot winds are felt sooner; the *chota bursat* can be less than usual though never absent towards the Khasia Hills; and the actual monsoon then coming in of a heap is likely "to burst" at Colombo, yet giving great promise, the rain may not be resumed after the usual "break" (stoppage) in August, thus leaving interior districts liable to drought, and if no falls occur in September or early October the outlook for the cold weather crops is not quite bright. One season's failure means scarcity, two in succession cause famine in the land. Severe famines in recent times have been the Tirhut, the Rajputana, the Madras, each fortunately separated by long interval; scarcity is not infrequent in parts of the country.

OBSERVATIONS ON THE RAINFALL.

In charts of the world there is no "white patch" on the face of India; however, on the West from Karachi to Mooltan in the plains of the Indus the fall does not exceed 7 inches yearly though on rare occasions rainstorms from Puri on the Bay course across country, adding 50% to Karachi's register: Lower Sind from April to October, has strong south wind blowing, there are no heights to hold up and the moisture is evaporated, its cooling effect being felt hundreds of miles up the plain. In the Punjab far inland the summer rain brought by the Gangetic current principally is thus a month later, than in the peninsula; at the frontier the amount is 20 inches including its cold weather repeated light falls; at Lahore below the annual amount is 20 also. The desert of Western Rajputana is little better than Sind as to rain; in the adjacent maritime district of Guzerat having the Aravalli Hills at the back, 80 inches is the register; on the central Malwa plateau the amount is 42 inches average. Down south at Mahableshwar in the Western Ghauts, 4,700 feet high, 260 inches annually is the ordinary rainfall; Bombay has 75 and Peninsular Deccan 30 to 40 inches yearly.

Going to the extreme North-East of India there occurs rainfall to be measured in feet on the Cherrapoonjee plateau.

4,400 feet high, of the Khasia Hills, above the head of the Bay and only 1½ degrees above the Tropic of Cancer ; 25 to 29 inches daily for days in July and August are recorded ; the ordinary annual amount being 43 feet while at Shillong 30 miles northward the fall drops to 70 inches. Luckily the Cherra plateau is of horizontally stratified hard sandstone with on the East a deep broad valley to carry off its deluge; these hills are, it is to be noted, bare of trees so the theory that forests particularly attract rain is here specially disproved ; moreover in the lower Garo Hills in continuation, absolutely forest-covered, the rainfall is not half. The fact is that, given rain, a forest prevents rapid evaporation, yet in the Khasia bare hills, springs keep in action throughout the year, due to saturation of soil. East and west of the Khasia, the Hill systems have remarkably heavy dew, the drops from the tree-tops and falling on the dried leaves on the ground in exact imitation of rain.

Clearing the Garo Hills End, the Monsoon Wind is quite free to move up to the Himalayas at Darjeeling, yielding here 120 inches, the heaviest known in the Himalayas ordinarily, and it is now settled that the Monsoon moves over the Eastern Himalayas into Lhasa. At Calcutta where the current is still from the South, rainfall averages 65, lessening to 42 inches higher up the Ganges.

Ceylon favoured by the two Monsoons, has 50 to 100 inches in the year according to altitudes.

In Burma the Summer Monsoon gives 58 inches and continuing its course into Eastern China, the amount is 26 up to the Gulf of Pechili on the Isothermal of 80° which is that of Colombo then.

CAUSATION, OR CONTROLLING FACTORS.

In the Indian Ocean, an embayed one really, its Tide is small; being in the Torrid Zone directly under the sun as the solar intensity every half-year increases over India, Burma, etc., the thermal Equator moves up, drawing after it the South-East Trade Wind that turns back the North-East one over these lands, also causing the drift of the Ocean's surface in the Arabian Sea and Bay of Bengal to follow and the same in the China Seas. The induced draw is northerly, but by Hadley's law the Earth's rotation takes the force to the left, but by draw and convergence on to the superheated lands, South-West is the general free direction of the Summer Monsoon Wind.

Old Sol's movement up to the Tropic of Cancer is of course constant, superheating of the ground causes ascending air regularly too, yet causality in directing the moisture-laden wind to rush in to take its place, is on occasions not according to normal; nevertheless the Monsoon as a whole between Long. 30° and 120°E. never fails though it has special determination at times. The South-East Trade on the west, at the start, can be kept guided from the Seychelles on to the Abyssinian Highlands, producing thunderstorms and the rise of the Blue Nile particularly; also into flat Arabia, where like in Sind, its moisture is soon evaporated, the result being that the Arabian Sea current over India is deficient; on the North-East Monsoon being prolonged on the African terminal in Kenya Territory the current is delayed in reversing to South-West. In India the South-West is at times protracted into October generally, again on the East also at the start, the wind can continue northward from equatorial Sumatra and Java with a set up the longitudinal valleys of Burma and Indo-China when heavy floods in China are sure to be heard of the Monsoon then reaching up to the Amur, the result being in this case less rainfall over India. Charts show the Isothermal of 80° to pass by Cape Guardafui, Ceylon and Java, while about Abyssinia and Arabia is an enclosure marked 90°; along Burma from Sumatra to the Gulf of Pechili is the greatest breadth of land to be heated between the upper and lower Isothermal of 80°. The wind follows in the course of increasing temperatures, the thermometer therefore being the instrument during the period to note. As before stated there is the break in August in the rain stopping for some days since at this Mid-Monsoon month moisture saturation over India reduces the thermal gradient between ocean and land; there is some rest till the sun's power has restored the blow in, when the characteristic is scattered showers till the Retreat in September, though not so infrequently, this "break" marks the end of the South-West except in special localities where however the rain is light thereafter, thus explaining the figures on charts of 30 to 50″, etc. Then Dew comes in as the phenomenon, its damp being specially felt in the hills.

METEOROLOGISTS' THEORIES.

"The snowfall," "the trough of depression with consequent baric gradient" have been alluded to; now in India information is sought as far South-West as the Argentine across another Ocean; Dr. Simpson before the Royal Meteorological Society lately propounded the modern Science, and coming to India's periodical South-West Monsoon opined its causation lay in the great difference in pressures in the South Indian Ocean and in the lofty plateau of Central Asia, opined it must remain as no practicable plan can there be of verification, yet at once it can be said it omits the consideration that Indo-China and Coastal China within the Monsoon region, are out of the way of his Low Pressure area of Central Asia: also the Summer Rains ("North-West Monsoon") of North Australia disprove the theory, and the dry and wet seasons of Central America, without lofty plateau are like the Indian. If a reliable Forecast of the South-West is to be got, in India itself it is to be sought from the Meteorological Records of Cherrapoonjee especially, with those of Mahableshwar added to the study to make out *cycles*, while the question of the Sunspots at maximum and minimum concurrently is not to be neglected. The writer who was in Cherra for a few years noticed an interval of 5 to 6 years between its maximum rainfalls.

Up to August this season (1921) the Khasi Hills have had 120″ over average, while round the Garo end the set over Cooch Bihar plain on to Bhutan has given equal excess: the result is a deficiency of the North-West current up the Ganges.

GENERAL.

In the North-East corner the Tea plant is indigenous and fortunately for the Planters the Rains there never come near failing, and lower down in the flat country in the flood waters that move very slowly, rice and jute thrive immensely; in Mid-India the Summer crop (*kharif*) of coarse grains is often meagre; in other districts the more valuable cold weather crops (*rabi*) of sugarcane and wheat can be helped by well irrigation, in the Punjab by canals now-a-days. In the Deccan there is always enough rain for cotton.

India is a land of extremes—pluvially also; on its westernmost side merely 10″ is the annual, in the easternmost corner nearly 600″, at the North corner 20, at the south Cape 100 inches: moreover good rain every year is a blessing, yet if heavy there is produced the real scourge of the country, malarial fever, which decreases the population as much as severe scarcity does. Indian farmers (*ryots*) are wont to wait on Providence yet will attempt to conclude on the Law of Averages that after a failure, a success must come, and they note that high temperature arriving prematurely indicates early Monsoon. They can be a bit philosophic for it is the class of Farm-labourers who suffer by drought. Formerly famine in the congested land was taken, like Bernhardi's War, as "a biological necessity"; it has come to pass the British Government is in the country to help both by Remission of Land Revenue and by starting Relief Works to tide the poor over till the next year. These measures cost much money, rendering Annual Budget-framing by the Government no sure task ; and cultivators will scatter their seed according to Indian custom after the first summer shower, hoping for the best while their labourers are never prepared for the worst.

P. CLEVILAND GILHOOLY

PARCHMENT

Since first in ancient Pergamus a scribe
Made smooth with pumice stone a piece of skin
And formed thereof a surface, white and thin,
On which to write the stories of his tribe,
How oft a messenger has travelled light
To haste with royal parchment to his lord !
How many men and nations, when they warred,
Have for a bit of parchment ceased to fight !

The humble sheep and goats have bled unknown ;
Their flesh and bones, returned to earth again ;
Yet of their skins, where writ upon with pen,
Full many score lie locked in vaults of stone,
While others, set in glass and gilded frame,
Attract far pilgrims who have heard their fame.

WAYNE GARD

THE ROSE OF INDIA

ACT III

SCENE I

[*Scene* : Outside Paradise—a gate heavily barred—light dim throughout—Gad discovered with an angel].

A Voice—

The King hath pardoned thee ! Pass through the gate.
Enter thou soul approved and newly cleansed !

(*They pass through the gate—the gate then rolls away.*)

Gad—

Where am I ? But a moment past I lay
In Gondophares' garden. Did I die ?

Angel—

Thou art no longer in the body pent,
Yet there are threads that bind thee to it still,
So that thou canst no further on thy way
Beyond this border-land of Paradise.

Gad—

How came I hither ?

Angel— On wings of angels borne

And in the twinkling of an eye didst pass
Oceans of space that roll e'en now between
Thy soul and body.

Gad— Who art thou ?

Angel— I am he,

Appointed guardian of thy soul, and sent
To welcome and inform thee, and reveal
Things hidden from man's knowledge and prepared
For those that love the Lord.

Gad— Would I were one!

Yet to behold the joys in store for those
Whom I have loved and left in Narankot,
That were my joy indeed!

Angel— Thou shalt both see

And enter in to taste them, for thy name
With theirs is written in the Book of Life.
Yet hast thou far to travel, and a while
To wait in patience.

Gad— Shall I see the Lord?

Cometh He ever to this border-land?

Angel—

He came and looked upon thee, and His hand
Was raised above thee, while He spake a word
That woke such wondrous music in this Land
At sound of it the lily-heads of Eden
Unclosed their golden petals to give out
Their silent praises, and a mellow light
Was on them as they made a golden way,
That winded on and upward to a Gate
So dazzling that upon it scarce may look
The eyes of angels; and the courts within
Were filled with music that came answering
In swelling waves of rich, exultant sound,

Gad—

I saw Him not—heard nothing, save a voice
Close by that said, "The King hath pardoned thee!

Angel—

'Tis all in that assurance; but thine ears
Are yet unsealed, and to thine earth-bound eyes
All dim that else were bright and glorious.
Anon thou shalt with quickened hearing hear,
And see with clearer vision. Now to hear
That heavenly music would thy spirit thrill
With such a sudden rapture, it would be
Beyond thy power to bear it. Now to look
On that dear Face would pierce thee with such shame
All earthly anguish, if compared with it,
Were as a spark is to a sea of fire.

Gad—

Then may my patience with my longing grow,
Crying, I am not worthy, nor can be
Till the white garment of His righteousness
Cover my utter shame and nakedness.

Angel—

Yet it is given thee to see from far,
As through a veil, the mansions of the blest,
That hope may light for thee the waiting hours.

(*In the background is seen a shining mountain range crowned with white domes and minarets. The vision gradually fades; meanwhile a voice is heard singing.*)

Mansions that wait for me
On you my eyes are set;
O beauty, favoured once to see,
No heart could e'er forget!

Homeland and hills afar,
No sight were half so sweet!
Christ, light for me Thy morning star,
To guide my climbing feet!

Gad—

O loveliness, why dost thou fade so fast,
Like youth and beauty from the sons of men,
Turning delight so soon to fond regret?

Angel—

It fadeth not save to thy clouded eyes;
Nor is it lost, that it should breed regret.
It lies ahead of thee; 'tis thine to win.
Thou hast beheld it—hope and strive anew.

Gad—

Whose were the many mansions I beheld?

Angel—

Thou sawest only those that are prepared
For future habitants, not strange to thee,
But saints whose names thou knowest, held in love.

Gad—

Whose? Tell me this, I pray thee. Saw I where
Sweet Magudani shall hereafter dwell?

Angel—

She and thou with her—for your souls are twin.
And thou didst see the palace of the King
Built by the blest Apostle with the gold
He gave to make himself an earthly house.

Gad—

Would only he might know it, and could see!
Then would his heart be softened, and the King
Would lead his people to the feet of Christ—

Angel—

So it is written. Though within his heart
The power of evil wages war with good,
Yet must the good prevail in God's elect.

The Voice of Ram Chandra—

Return, O spirit of the godlike Dead!
In Ram's great name, his priest commands thee, rise!!

Gad—

Ah! what strange force is this that draws me back
As in the current of a mighty stream?

Angel (*catching hold of him*)—

Hadst thou in stream baptismal been immersed,
Thou hadst not felt it. 'Tis an evil power.
Cling to the cross beside thee—thou art safe.

(*Light falls on a cross of stone—Gad clings to it.*)

The Voice of St. Thomas—

Return, beloved brother! In the Name
Of Christ, His servant summons thee. Arise!

(*Stage darkens—sound of thunder.*)

SCENE II

[*Outside the city gate of Narankot*: Gad sitting up on a funeral bier. St. Thomas clasping his hand, Gondophares and other male mourners; all clothed in white—Also Ram Chandra, a soldier on either side—a crowd.]

St. Thomas (*looking up to Heaven*)—

I thank Thee Thou hast heard me, and restored
Our well loved brother, and a virtuous prince
Unto this people, and shown forth Thy power
That all may praise Thee and confess Thy name.

Crowd—

Jesu Masih, have mercy on us all!

(*All prostrate themselves except Ram Chandra,
St. Thomas and Gondophares.*)

Gondophares—

Is this a dream, from which will come alas!
An all too swift awaking, or do I
Indeed behold thee, not thy lifeless form?
Speak, brother Gad, and tell me—is it thou?

Gad—

O royal brother, it is I myself.
Have I so long been sleeping that I seemed
Dead—that ye bring me thus without the gate
In the white robes of mourning, with the logs
Piled up to feed the flesh-consuming fires?

Gondophares—

Dead did we count thee. But, if thou'rt alive,
How fares it with thee?

Gad—

'Tis as well with me
As though I waked from some refreshing sleep,
Whose joys too soon were sped.

St. Thomas—

What joys were those ?

Gad—

O *Swami*, what is this that thou hast done ?
Ah, all too soon thou summonest my soul
Back from the blest retreats of Paradise.

Gondophares—

His reason wanders.

Gad—

Royal brother, nay.
My spirit hath been afar from Narankot,
And entered by a gate mysterious
The borders of a new and quiet land,
The abode of holy souls, and there I saw
Fair mansions waiting for the saints on earth,
And pastures where a Shepherd fed his flock
And led them by still waters. I beheld
A palace set on high, its stainless domes
And pinnacles with wondrous light agleam,
Flashing a thousand hues, as though inlaid
With countless gems—the ruby's crimson glow,
Hyacinths or white or blue, the unfading green
Of emeralds and the opal's sunset fires.

Gondophares—

Couldst thou in no wise learn from one of those
Whose lot is fallen in so fair a ground,
Who owns that palace or inhabits it ?

Gad—

An angel told me how it was the same
Built by our blest Apostle for the King,
For thee, O Gondophares!

Gondophares—

Said he so?

Gad—

But that thou art not worthy of it yet;
But shalt be when the good in thee prevails,
No longer grudging to the poor the gold
That builds thee there so fair an edifice—
E'en while thou stretchest forth an impious hand
To persecute its builder.

Gondophares—

God of Thomas,
Have pity upon my blindness! and do thou,
O man of God, thy Master supplicate
To make me worthy of mine heritage,
E'en as I now, a humble suppliant, bend
Down to thy feet for pardon of my sin.

St. Thomas (*making the sign of the cross on his forehead*)—.
The peace of Christ, my son, be with thy soul!

Crowd—

Jesu Masih, have mercy on us all!

Gondophares (*removing his crown*)—

Lo! at His feet do we, his servant, lay
The symbol of our earthly majesty!

St. Thomas (*stooping and then raising the crown to heaven*)—
Accept O King of kings and Lord of lords,
This King and people who are won for thee.

Hymn Chorus.

O Kings, your golden crowns before Him cast
Who reigns, the King of kings ;
Who rises as the sun on darkness past,
With healing in His wings.
Alleluia !

The Government is on the shoulder now
That once a Cross hath borne.
No crown more glorious than surrounds the brow
That once was girt with thorn !
Alleluia !

Receive us—we are not our own but Thine,
And with Thy life-blood bought.
Take up thy pearl, O Merchantman divine,
Which thou so far hast sought !
Alleluia !

When Thou hast brought Thy scattered children home,
And all Thy gems are stored,
The kingdoms of this world shall all become
The Kingdom of the Lord !
Alleluia !

(*The King and all others rise. Turning to Ram Chandra he walks up to him,—a pause,— then*).

Gondophares (*drawing his sword*)—

Brahmin, the test is over. Saidst thou not
Who raised the dead should guiltless be acclaimed,
But he who failed should die ?

Ram Chandra—

I said it, Sire.
'Tis justice, and I ask it—nothing more!
He who for stakes so high would play the game
Must pay as highly if his game be lost.
I make no murmur. I had more lief die
On such an issue, than eke out a life
Tame, unadventurous—which, daring nought,
Hath nought to fail in, like the common run.
A life's true fame is not what it hath hit,
But what it aimed at. As I said, I rode
To fall or conquer. I have fallen.—Strike!

(*Gondophares swings his sword.*)

St. Thomas—

Stay, Christian King, thy hand! and as but now
Thyself hast won forgiveness, now forgive!
(As Christ in death forgave His murderers).
So brave a servant of imagined gods
Yet may His martyr prove. Destroy him not,
But banish him this city and thy realm.

Gondophares—

Thou hearest, Brahmin? I may not refuse
Aught to the Saint who hath such blessing wrought
This day among us. So thy life is spared;
But get thee hence from out our territories.
From Kandahar, Kabul and Taxila
Whose wide domains afford no room for thee
Nor there set foot, on pain of death, again.

Ram Chandra—

Farewell, divinity! We wish thee joy
Of these new fashions. Shouldst thou stand in need,
Recall a faithful servant. (*To St. Thomas*) As for thee,

Thou proud supplanter, standing in my room,
The ground's but insecure. He's apt to slip
Who holds his charter by the breath of kings.
Nor for thy pleading unsolicited
Do I Ram Chandra thank thee. Bitterness
Of death were nothing set beside the shame
Of owing life (if banishment be life)
To a foe's pleading. Also 'twas unwise
For thine own safety, since, if live I must,
I live to lay thine honour in the dust.
Salaam—it may be we shall meet again.

(*Exit.*)

Gondophares (*to Gad*)—

Come brother, thou must all impatience be
To find the room[1] where Magudani weeps,
And will not be consoled for loss of thee.

(*Exeunt all but St. Thomas.*)

St. Thomas—

O Mary, away in far Jerusalem,
Couldst thou but dream how still in me abides
This weakness which will not be comforted,
Which cannot be consoled for loss of thee !

(*Buries his face in his hands. Voices heard singing.*)

" So be it, but eyes must weep,
So be it, but hearts must break.
'Twixt two must roll the boundless deep
For a ransomed people's sake."

(*To be continued*)

FRANCIS A, JUDD

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[1] *The room where Magudani weeps.*—A special room was reserved in the houses of the great for mourning.

"SAUDA," THE SATIRIST OF HINDOSTAN

(*A Biographical Sketch*)

Sauda has special interest in that he stands early in the list of the makers of Urdu into a medium of literary expression, and was, with but one possible rival, the greatest poet of his age, and is still supreme in one department, the "qasida," whose probable meaning is the "purposive poem," *i.e.*, one in which something is petitioned ; usually its whole constitutes a panegyric to the person thus approached.

Urdu, as is well known, adopted the grammar and syntax of Hindi, and wove into it phrases from Persian and Arabic. Before its appearance as a cultured language, Persian was much cultivated in Hindostan, and Arabic, but mainly for its sacred significance. Urdu continued the traditions of Persian. It experienced no heroic age that could call an epic into being, though as a distant relation it may have a glory reflected of Firdausi's great Persian epic, the Shahnama (Record of the Kings). Since the latter's production, Persian poetry had developed its classical forms, and Urdu borrowed all direct and made her idiom fit them. It is a far cry from these to the primal, natural forms illustrated for example in the Hebrew "Well-Song," "Spring up, O well, sing ye unto it." Nor do we find the simple song of the poet of the soil, or the emotions that the sea in its changes from "sincere melancholy" to awful majesty, or the tumultuous mass of the mountains, arouses.

The reason is to be found in the conditions. Æsthetic rulers of the Arab and Persian courts attracted to them the talents of the nations. The poet who would make his way read his lines to a cultured audience there; a false image or an inapt combination of words drew upon him derision unless he could support it from an authority. Similes and apt combinations thus tended to limit themselves. But the budding poet had good discipline in correctness and right form. He first attached himself to one or more masters who emended his work. Then when this new fledgling felt strong enough to test his wings abroad, he betook himself to Mushaarahs, public literary congresses. These were veritable schools of poets, and work that passed muster there was likely to prove generally acceptable.

But it must not be concluded that this constituted an exception to the rule that "a poet is born, not made": there were many pedagogues, but only a proportion poets.

Mirza Muhammad Rafi came of a family of position in Kabul. Its earlier members were soldiers by profession, but Mirza Muhammad Shafi, the father of the poet, came to Hindostan for purposes of trade, and as it proved to stay. It has been said that our poet derived his pen-name "Sauda" from his father's connection with trade (*saudagari*, in Persian), but it is commonly accepted that his pseudonym is the Persian word denoting "love's melancholy or frenzy," a state inseparably bound with love, for in Urdu and its kindred Persian literature love is ever an ecstasy or a hysteria, and in exaltation of spirit or dementia the Lover flies to union with the earthly Beloved, or communion with the heavenly, or, in the case of the Sufi (mystic), perfected in the degrees of extrusion of the self and tenancy by the universal self, to absorption in the Beloved.

Though earth's physicians all be called to treat thee,
If thou have not word with Laila, none can heal thee.

(Laila is the typical Beloved, a kind of patron saint of lovers.)

In gentler vein writes Ahmad bin Mahmud al-Ghazali, brother of the great spiritual leader, who passed from light unto light:

From out of the Nowhere Love came,
And I for Love was Creation's aim;
I leave Thee not till fragrance go from aloes,
Day or night, nor years, despite the envious.

Of his early career we do not know very much. He was born at Shahjahanabad in 1125 (c. 1713 A.D.), and was reared and spent the major portion of his life in Delhi. He first cultivated the Muse with Sulaiman Quli Khan "Wadad," then with Shah Hatim, who proudly mentions him in the list he gives of his pupils in the preface to his Diwan (alphabetically arranged collection of poems). Shah Hatim had been a soldier gay in the time of King Muhammad Shah. Later he turned *darwesh* (ascetic devotee), but the "old Adam" was not quite shaken off; even the garments of nakedness he wore with a rakish air. Settled in Delhi from his native Shahjahanabad, and a wooer of the Muse, he was one of those early stirred by the arrival there of the Urdu Diwan of Wali, the Gujrati poet, who first showed with completeness Urdu's fitness for adaptation to the Persian measures. He and his contemporaries zealously directed themselves along this new line of development.

To Khan-i Arzu, a great formative influence in that nascent period of Urdu, though himself a writer of Persian almost exclusively, we owe it that Sauda was induced to turn from Persian composition. Khan-i Arzu persuaded him saying that as he could never hope to compare with the Persians in their own tongue, he should write in Urdu, and added encouragingly that as he had a talent for Urdu versification, he would become pre-eminent in his age. The prediction was fulfilled, Sauda early heard his love-songs widely circulate.

He too had to enter the arena of the Mushaarah. On one occasion such an assembly was being held at the house of Khan-i Arzu. Sauda was a young man at the time of the incident, which though difficult to date, occurred in Delhi, and a number of years therefore before 1169 (c. 1756 A.D.), the year of Khan-i Arzu's death. Sauda recited a poem whose opening line was a deliberate plagiarism from the Persian of Qudsi, as Khan-i Arzu straightway proved it to be by quoting the original. The others present, either from their want of knowledge, or their fear of his sharp tongue, for which he was already probably notorious, had kept silence.

His fame drew in time the attention of the king, Shah Alam, who began to submit his poems to him. Surprised at Sauda's delay in making emendations he asked him how many ghazals (love-poems) he wrote in a day. He answered that when he felt in the mood for it he could pen two or three lines. It was an age when people said coarse things coarsely, and to the king's jibe implying that he could turn out as many ghazals in about as many minutes, Sauda retorted effectively, but with equal vulgarity. Later the king sent urging him to emend his poems, under promise of appointing him Poet Laureate, but Sauda replied that if he were to gain such rank it must be by dint of his own merits. Subsequently he wrote his Mukhammas (five-line stanza, whose end-rhyme is here exemplified), beginning :

I said to-day to Sauda : Why so aimless wander ?
Go, buy a horse and into service enter.
In answer he made me this curt rejoinder,
Which if I repeat, you'll think him a jester :
  "Tell me, is service sold by bulk or measure ?"

The evil-doers are strong, and the nobles are weak in the land,
And have not pence to requite us to oppose the evil band ;
No rents they get in spring or in autumn from their land.
Officers in districts have their reputation built on sand,
  No better thought than rustics held for hostage in ruler's hand.

Whether it be taken as a satire on the king and his court, as some advise, or as a lament over the unfortunate times, according to the biographer Azad, this much is known that Sauda did not accept the title or the duties on the king's terms. His needs were relieved by the ministrations of friends, in particular of Basant Khan, whose memory he has preserved in a qasida.

Shujaud-Daula, Governor of Oudh, becoming acquainted with his merits, wrote inviting him to Lucknow, in terms at once honouring and paving the way for intimacy: "My Friend, dear to me and kind,..." He also sent the expenses of the journey, but Sauda was unwilling to leave Delhi, and excused himself in the *rubai*:

> Sauda, for gain how long will you go wandering,
> From street to lane and back again go gadding?
> The aim of such thy mission is but worldly gear to get;
> And e'en you should make gain, yet time is fleeting.

But when death's hand removed his friends and their support, he was reduced when already advanced in years to seeking elsewhere a market for his wares. He turned to Lucknow. On reaching there in 1185 (c. 1771 A.D.), he obtained an audience of Shujaud-Daula, and was honourably received. Unfortunately the good-hearted governor, whose death some two or three years later was a personal grief to all his subjects, blundered in his amiability or from failing to realise his man's sensitiveness to innuendo in the circumstances, and touched him on the quick by saying: "Mirza, that *rubai* of years is still impressed on my mind," and followed this with its repetition several times over. Sauda keenly felt his stranded position, and on principle did not again enter the gubernatorial court until Asifud-Daula succeeded his father.

He occupied himself mainly with Urdu, but also produced some work in Persian. In the former language he composed verse illustrating all the classical forms. Of these mention may first be made of the ghazal or love-poem. Convention requires that it should give utterance to such amorous ideas as the hope and joy of meeting, the despondency of separation, and the lover's hapless lot, in language simple and appealing as were it conversation. The following renderings from our poet may serve to illustrate some of the essentials of form and content, and the great part played by imagery:

Though candle be laid no more on my grave-head,
Despair burns its heart for me instead.
The moth's self-immolating love wakes in me shame,
The constance of the candle should make Thee hang thy head.
" Let me consumed to ashes lie at the candle's foot,
E'en as the moth,"—thus to my heart I said.
Shed not hot tears, for ere their heat but revive me,
The candle will burn out, and my hope to burn be dead.

And a few lines of another:

Gladness wanders from my sorrowing heart afar,
As Merry-Andrews pass the house of mourning afar.
In what grief my life's short day has passed,
From knowing such grief may sad Muharram be afar!
Bulbul, for thy redress is it like yonder sky will come
Which keeps the wound of the rose from suture and balm afar?

* * * * * *

In this our earthly garden joy is twin of sorrow;
May not rose's laughter hold herself from dew's grief afar!
A stag on frenzy's moor am I, ne'er think me docile to Thee,
But the measure of my dementia deem beyond docility afar.

His ghazals are impassioned and tender in feeling, and place him in a leading rank, though not foremost. For instance superiority has been acceded to his contemporary Mir Taqi, whose touch was daintier than that of the sterner-natured Sauda, and who found in this form his métier. The point is entertainingly made in the course of an argument between two pupils of the poet Basit, who entered on the oft-discussed matter of the respective merits of Sauda and Mir, and at length referred their contention to Basit. Having first asserted both to be masters, he pithily condensed the poetry of Mir into a "Dear, Dear!" ("Ah," in the original), and of Sauda into a "Hear, Hear!" ("Wah"), and in explication quoted these lines of the former:

> Speak softly by Mir's couch,
> E'en now he has wept himself to sleep!

and these from the latter:

> When the tumultuous din reached to Sauda's couch,
> The vigilant warders said, E'en now his eyes have closed.

One of Sauda's admirers told him the tale. With a smile he remarked: The lines are the lines of Mir, the solicitude his old nurse's.

The solemnity of the Marsiya (Elegy) has often been held sufficient excuse for literary demerits. Sauda deplored the hesitation to apply to it literary canons, and raised the elegy to a rank with other poetical forms. He thereby exposed himself to a charge, which has actually been brought against him, of having subordinated the threnodic element. The charge cannot well be substantiated, if at all, for his elegies are replete with pathos and poignant grief.

But the qasida, or poem in praise of God or his saints and panegyric of princes and patrons, and the satire provided him with greatest scope. Here he reigns supreme. Mir Hasan, his pupil,[1] though the son of one who entered the lists against Sauda, says in his important biographical work on the poets, which by the way was till recently believed to have perished, that "he has a wonderful capacity for *qasidas* and satires; his *qasidas* are a pleasure entrancing; the eloquence of his satire is sublime; and his poetry is a fount of joy."

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[1] The assertion that he actually submitted his work to Sauda, and did not merely model himself on his lines, is disputed by Maul.—Habibur-Rahman in *Urdu*, Jany., 1922.

It is to Sauda's credit that he seldom gave first offence, but 'being in and having his quarrel just' he was merciless in his taunts. The encounter with Mir Zahik, father of Mir Hasan mentioned above, is a case in point. Zahik had remarked unfavourably on Saudà, who hearing of it went to him in person and represented that as he was a Syed (*i. e.*, of the Prophet's line), it would be disrespectful that any aspersion such as Sauda's enforced retort must contain should be cast on him. But Zahik declared that in poetics there was no question of religious superiority, and both then joined in contest in the arena of scurrilous invective.

Sauda was not merely pungent. His arrow sped truer and farther for being feathered with humour. His man Ghuncha was always in attendance, with the pen-case handy. When Sauda quarrelled with anyone, he would call: Hey, Ghuncha, bring the pen-case; I'll dress him down a bit! What does he take me for? Then "with the eyes of modesty closed, and the lips of licence open, he would abuse him so grossly that the Devil himself would cry for quarter."

The bouts with Fidwi, a Hindu convert to Islam, were the more punishing for the use of a seemingly gentle weapon he employed. Fidwi's work had won high favour, and for his panegyric he had received from King Ahmad Shah a handsome reward. He criticised Sauda, who retaliated with the Satire on the *Bania*. Having dealt out to him exquisite ridiculè, he likened his linguistic comprehension to the discerning sense of a *bania* who had the misfortune of having for creditor an astute but impecunious sepoy. The latter at last saw in his tame owl a means of removing his indebtitude. He fitted it out with the accoutrements of a falcon, and passing it off as such on the *bania* cancelled his debt and was something in pocket besides.

The satire at the expense of the Kotwal or chief of the town police is very diverting:

The days of that good polity, O friends, are past and gone
When the hand was cut off that purloined a citron.
The crack in the wood was quickly bound fast,
And the grub in the cucumber made breathe his last.
The city's Kotwal had with bribes no connection,
Nor ear ever heard of the thief by profession.
And peace and security crowned every day,
And the months and the seasons passed happy away.
Now, look where you like there's an uproarious crowd,
"Thief," "Thug," "Snatcher," you hear them calling aloud.
Who goes to the bazaar to spend but a bawbee,
Returns with lamentation dire, and minus his pugree.
But, prav, what else can you expect in the street
When one like Shidi Kafur is the Kotwal over the beat?
Were he a Kotwal really, his authority they'd receive,
But even a mosquito's trappings this fellow would thieve.

He is also the author of a pamphlet in Persian. The circumstances under which it was written show that the society approving satire is capable of carrying personalities still further. A certain Ashraf Ali Khan had devoted fifteen years to the selection of specimens from Persian-writing poets. He submitted it to Mirza Fakhir "Makin," a poet of considerable repute. The latter grudgingly undertook the task, and using his editorial quill freely emended or deleted even verses by acknowledged masters. In despair the author carried the poor remains of his patient labours to Sauda, whom he at length induced to look into it. Finding that Makin had actually taken undue liberties, he wrote this pamphlet pointing out the errors he had made, and even emending portions in Makin's own Diwan.

The latter sent a capable pupil, Baqa, to discuss matters with Sauda, who however did not yield any ground, and only established his position the firmer. Thereupon, some of Makin's partisans in Lucknow becoming exasperated carried off Sauda by force from his house, and would have further molested him in the public square had not Saadat Ali Khan unexpectedly appeared on the scene. He rescued him and led him to his brother, Asifud-Daula, the Governor, who taking the affront offered his favoured poet as a personal one punished the leading miscreant, and would have dealt with Makin, had not Sauda interceded saying that the issue of their affair could be settled with literary weapons. Asifud-Daula next day summoned Makin in presence of the durbar, and said: Your conduct has been unworthy; if you are a valorous poet, come, satirize Sauda face to face. But he pleaded inability, when Asifud-Daula turned on him and rated him soundly. Then he beckoned to Sauda; who nothing loath delivered himself of this *rubai* impromptu:

You are an asset of Khorasan—with "et" elided,
An opal you have in your mouth—with "ff" for "p" elided.
Day in, day out, from the Almighty this I beseech,
That he may send you on your way—with "s" elided.

(Some liberty has been taken with the second line in the endeavour to render it appropriately.)

Though this did not terminate the campaign of invective, its immediate result was materially favourable to Sauda, for Asifud-Daula conferred on him an allowance of six thousand rupees a year for the rest of his life; and besides his local successes, time, which, as Voltaire has said, "subverts the reputation of common performances," has rendered his more stable and permanent, whereas the works of his fellow-satirists have been mostly forgotten.

Of his Urdu prose only a fragment is preserved. He rendered into prose Mir Taqi's masnavi "Love's Flame." This rendering is lost, but the introduction has been preserved, and apart from the interest of its somewhat archaic and its still stiff-jointed composition of Hindi, Persian and Arabic elements, it is historically important in asmuchas it is one of the earliest specimens of this prose. Only a few years before, 1145 (c. 1732 A. D.), what was probably its earliest predecessor had appeared to herald in a prose literature that has become copious, and which, though diatomous, in that there is a broad cleavage between its prevailingly Hindi section and its pre-eminently Perso-Arabic, is not without monuments to fame in either.

His last years were spent in Lucknow, in the comfort which Asifud-Daula's munificence had provided. He continued to indulge his taste for music, in which he was skilled, and in poetry until the end, which came in 1195 (c. 1782 A.D.). Whatever tribute is paid him, it is due that he be acknowledged one of the greatest of those who gave shape to this eclectic language Urdu.

A. H. HARLEY

MORE EXPORT DUTIES FOR INDIA?

In this paper I shall deal with export duties mainly in their *fiscal aspect*, that is, as an engine of revenue-collection by the state and only incidentally and towards the close touch upon their value as a protective measure.

The *verdict of economic science* upon export duties in general may be given in the words of an authority. If "a country imposes an export duty on one of its staple products, the natural result will be a rise of price owing to the enhancement of its expenses of production for foreign markets; the foreign demand for the commodity in question will in all probability be reduced." (Bastable, International Trade, pp. 111-12.) A tax that dries up its source in this way defeats its own ends and export duties have generally been condemned by economists. There are of course two conditions under which they might prove to be productive,—but they are more or less impossible conditions, seldom fulfilled by any commodity. They are (1) that the exporting country should possess a monopoly of the production of the article and (2) the foreign demand for it should be keen, insistent and inelastic. Complete and unqualified monopoly of supply is rare, while a foreign demand that keeps steady in the face of unsteady fluctuations of price, is well-nigh unknown. Hence the unfavourable opinion on all export duties.

Although, then, opinion is hardened against export duties in general, the two qualifying conditions afford room for a duty on a particular article to succeed. To the extent a commodity satisfies these two conditions, to that extent is an export tax on it justifiable. Clearly, no *a priori* conclusion can be drawn on the point. The capacity of articles to bear taxes without much affecting their demand, varies from one article to another. The expression, "monopoly of supply" is elastic. The difference in the costs of production of an article between two countries may be so great as to constitute a virtual monopoly of supply for one of them. It can then safely levy export duties without inviting any appreciable amount of competition. Similarly, whether or not foreigners will stand an increase in the price of the exported articles is a chance well worth taking,—for it is just possible they had been paying a customary low price, leaving a margin between it and the price they would have been willing to pay rather than go without the article, which might conveniently be swept off to the State coffers. An export duty in such a case is a business proposition. Granting even that an export duty will occasion a reduction of exports, the proceeds of the tax might yield an income to the State higher than the loss to the traders. The community as a whole may stand to gain. The net result will depend on many complicating factors, which could not be brought together short of a mathematical formula. It is sufficient to note here that a great deal will rest on the individual commodity upon which the tax is levied.

A *glance at export duties in practice* would be very helpful. When have they been levied and how have they worked? A time was when they figured as an unchallenged feature in the fiscal system of many countries. But onward from the ascendency of the "mercantilists" (17th century) who glorified exports and preached against all restrictions upon them, they have rapidly declined in popular favour. To-day they are almost a thing of the past. America had never an export duty in her tariff. The English Parliament first imposed one in 1275. In India under the East India Company "there were export duties levied in all the presidencies and chiefly on grain, rice, indigo, lac, opium, silk, tobacco and native manufactures of all sorts." (See article in Palgrave.) Of the modern export duties, the most notable examples are, upon the charcoal and olive oil of Italy, two chief products of the country;—upon English coal, justified on non-economic grounds; upon coffee in Brazil, a staple product of the Republic; upon nitrate in Chile having a partial monopoly of the world supply of that substance; upon certain products of the British Colonies, *e.g.*, sugar of the West Indian Islands, and last, not the least upon jute, opium, tea and other monopoly products of India. It would be seen that all these duties follow strictly the principles laid down in Economics and nearly all of them have worked well. They are levied upon articles that are keenly demanded by foreigners and levied by countries that have a weighty advantage in producing them as compared with other countries. The suggested export duty on American Cotton (nearly 70% of the world's supply) could also be supported on like grounds.

The *points* that are *to be borne in mind*, in imposing an export duty, violation of which means the red signal for disaster, are the following:—

(*a*) It must be levied upon a monopoly product. But the advantage of the producing country should be a real and not an artificial advantage. A monopoly that is simply an undisturbed and allowed monopoly may be broken up any day by too much pressure upon potential competitors. The medicinal waters of the springs of Spa are an instance of natural monopoly. Cinnamon was once the monopoly product of Ceylon. An export duty upon it was very profitable, but drove other tropical countries to compete with her. As a result the duty had to be dropped in 1833.

(*b*) It must not diminish greatly the foreign demand. Articles for which good substitutes are available, do not admit of any export duty. There may be no temporary change in foreign demand,—but the long-period result only should be looked for. The low foreign demand for jute and tea in recent years, was not perhaps due to the export duty. It was an after-effect of the dislocation of the foreigners' credit system and the consequent loss in buying power.

(*c*) It should be a small tax and rising if necessary, also by small degrees. A large tax may immediately create a bad impression and demand may rapidly fall off. Likewise, it should not be an emergency measure, an instrument to swell the depleted exchequer, any and every time. International credit if once shaken is very hard to restore.

We may now come to study the *existing export duties of India.* The Review of Trade discloses the following, in 1920-21.

Name of article.	Per	Rate of duty.	
Raw Jute:		Rs.	A.
Cuttings	Bale of 400 lbs.	1	4
All other descriptions	„	4	8
Jute manufactures:			
Sackings	Ton of 2,240 lbs.	20	0
Hessians and others	„	32	0
Raw Hides and Skins	*Ad valorem*	15 per cent.	
Rice	One maund	0	3
Tea	100 lbs.	1	8

The jute duty was levied in 1916 at half the present rates. The tea duty was also launched in the same year. Older than this duty is, however, the tea-cess, operating for the last 15 years at the rate of ¼ pie per lb., the proceeds to be devoted to the cause of the tea-trade, the Government being a mere collector. The hides duty is in force with effect from September, 1919. A rebate is, however, allowed to the United Kingdom and the British Dominions which the Government of India expressly denied to be part of any policy of Imperial Preference. It was solely due to considerations of revenue. The duty on rice dates from pre-war times. Some proof of the general success of these taxes will be found from the following table exhibiting the exports of and the tax-revenue obtained from these articles in recent years.

Customs Revenue.

In thousands of rupees.

	1913-14.	1917-18.	1918-19.	1919-20.	1920-21.
Hides & Skins	...	...	...	91,22	60,22
Jute	...	1,83,38	2,14,16	2,97,48	3,31,13
Rice	1,28,75	1,05,27	1,11,13	37,20	60,28
Tea	...	43,83	43,86	54,51	41,61

Exports from India.

Jute	59,09,95	49,29,69	65,37,24	74,71,49	69,35,55
Rice	26,60,65	20,81,01	23,17,46	10,19,52	18,19,97
Tea	14,97,51	17,67,31	17,77,57	20,56,50	12,14,98
Hides & Skins	11,72,29	8,03,54	9,34,23	23,40,62	5,24,84

When it is seen how much the purchasing power of the foreign countries has fallen as a legacy of the war, and account is taken of the occasional prohibition of the export of rice from India, the duties must be considered to be a fair success. The reasons are just what economic science would anticipate. It is but fitting that India should take advantage of her practical monopoly of the production of jute, a monopoly that has no possibility of being shaken in the least in the near future. A circumstance equally favourable to her is that up to now, in spite of considerable attempts, no good substitute for jute has yet been found. Considering the nature of her control over the supply, it is an open question if she should not still more enhance the export duty. No one will press such a proposal at a time of slump in the trade. But the depression will pass away and when jute will come to its own,—of course it will hardly ever come to its mid-war prosperity again—the suggestion may be revived. Hides and skins do not seem to have behaved well under the export duty. Since the imposition of the tax, the revenue and the exports have both evidently fallen. But whether there is a causal connection between them, it is perhaps too early to judge. It should be remembered that India has no monopoly of hides and that protection of her leather industries was, very likely, one of the motives guiding the levying of the duty. It is possible the indirect benefit of retaining the hides in the country more than counterbalances the loss due to reduction of exports. In no advanced country in the world does such a state of things exist,—that the raw material is exported and finished articles made of that material are imported,—though facilities exist in the country to turn the one into the other. Had there been any parallel, the course adopted by that country could be profitably studied. But as things stand, the export duty on hides cannot be lightly condemned on the mere ground that it is strangling the export trade. The question is difficult to settle. The very low hides-prices that obtain in the country now, would imply that the export duty is perhaps intrinsically to blame. Much is heard against the freedom granted to rice exports. But nothing postulates a greater ignorance of economic science than opposition to the export of this article, provided stocks are sufficient in the country for the nation's consumption. The prosperity of an agricultural country depends on the export of its surplus produce. Excluding China's share of the production for which no reliable figures are available, India contributes about one-half of the world's supply of rice and the presumption is that even if the export duty is increased, the world could not do without exports from India. On the same ground stands an argument for a further small increase in the duty upon tea—that indispensable conventional necessity of all peoples, India being the largest tea-producer in the world.

Whether there is room for *newer export duties* in India's tariff will depend on much the same considerations that justify the present duties. It is for the experts to look about for the proper articles, but as far as possible effects could be anticipated from trade-returns and other statistical information, even an amateur economist could venture to point out some articles that could very likely bear such duties. There is Shellac for instance. " India has a virtual monopoly of the commodity " and repeated attempts to cultivate it in Japan and East Africa have failed. It is a pretty useful article too. A tax on it would have all the Science of Economics to support it, and it would certainly be popular at a time of huge budget deficit. The London price of shellac, after a fitful career, reached its zenith in February, 1920. By March, 1921, it less than halved. Such a tremendous variation is indication enough of the unreality of the fall and it is confidently believed that shellac will soon rise and an export duty, harmlessly, be put upon it. The case of wheat is more doubtful since India produces only $\frac{1}{10}$th of the world's supply. But wheat is an indispensable food article and the outside world can ill afford to do without supplies from India. In the trade in oil-seeds there are a good many articles that could easily bear some export duties. The trade in these articles is not very large but the tax proceeds though small would not be insignificant in these hard times. Consider the share of India in the world's trade in the following oil-seeds :

Seeds.	Exports from India 1913-14. Tons.	Per cent. of world's trade.
Rape & Mustard seed ...	254,000	66
Castor seed ...	135,000	100
Mowra seed ...	33,000	100
Poppy seed ...	19,000	76
Niger seed ...	4,000	100

As long as there is a demand for these articles (which would not be any the worse for a small export duty), India stands to lose by not availing herself of the opportunity. Formerly India had the largést share of the world's mica production,—but since the war Brazil has snatched away a great part of the advantage. I have not attempted to prepare an exhaustive list of possible articles capable of being tapped, but simply taken some to illustrate my point. There might be others equally fitted for the purpose.

Loss or gain, it must be admitted that the conservation of certain key materials in the country is essential for India's economic regeneration. We have said before how India is almost unique in sending away her raw materials, though facilities might be developed to utilise them within her own frontiers. High import duties on finished goods, prevent to an extent this foreign exploitation of her raw products. But one ventures to think that export duties, cutting up the foreigners' cheap supplies at the root, would be a less roundabout method for achieving the same ends. Such a duty could not of course be advocated on fiscal grounds, since it is meant to stop exports and cease to be productive of revenue. But there are nobler things than revenue to the State. Every export duty hurts the internal producer of the article in the first instance. It lessens the foreign demand. But if concurrently steps could be taken to increase the home demand for his commodity, there is no reason why he should suffer. It is with this express purpose that a *plan* of devoting a good part of the proceeds of the export duties on raw materials, for fostering the respective industries at home has been suggested. It repays examination. Take for instance Cotton. It is admittedly vicious to export cotton from India and import it back from Japan in the shape of sundry piece goods. Import duties with fear of retaliation and other attendant drawbacks, are not a sufficient weapon to help reserve the material for India. Suppose a 4 per cent. *ad valorem* export duty is levied, 3 per cent. of which goes to facilitate the establishment of mills, all conditions being favourable for their growth in this country. The foreign demand for cotton may shrink but the home demand will swell ; thus keeping up cotton prices. At a time when deficit budgets provide no money for industrial developments, such a plea is worth examining carefully. I know immense difficulties will rise up before any such plan may become workable. But if the principle is sound, its translation into practice should present no insuperable difficulties to the financier.

B. B. DAS GUPTA

TULSI PLUS DAS

(From *Hindi*)

(This was composed by Tulsidas as a reply to the praises showered upon him. He attributed all his fame to his Lord Rāma of whom he was the *dās* or servant).

Oh! give not thy praise unto Tulsi,
For Tulsi [1] is merely a grass,
'Tis the favour alone of Lord Rama,
That addeth to Tulsi the *dās*.

POST-GRADUATE

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[1] The Sacred Basil.

CONSTANCY

" I will be true," said the Iranian Shah to his bride-to-be. " I will be true as the sun which shines and fails not. True, O thou moon-faced Divinity with the gazelle eyes, till the nightingales have forgot their songs, and all the roses of Persia withered no more to bloom again."

But a year later he was saying exactly the same things to the amber-eyed wife of a muleteer, whom he came upon whilst out hunting, combing her hair at the door of a green reed hut.

" I will be true—I will be true," said the Emperor to his newly wedded Empress, " till the waves creep over and the seas engulf these flowery islands of ours. O long-eyed and red-lipped Incarnation of the Spirit of Flowers, I will be true till the end of all time—till the day shall turn to night and the night to day, and the very heights and snows of Fujiyama cease to be."

But ere the cherry trees in the royal gardens had flowered again he was learning the *semisen* from a slender-limbed Geisha girl who lived in a bamboo tea-house and knew how to sing old love songs—in a new way.

" I will be true," said the Mogul Conqueror to his youngest and newest Queen, " I will be true till the silver moon turns from her orbit and the stars burn themselves out and fall into the sea. True—O thou pale-faced Lotus Flower culled from the Garden of *Peries*—till the mountain ranges of the mighty Himalayas crumble to sand and are washed into the ocean."

But six months later he was telling the same tale to the slave girl with henna-tinted hands who cooled daily his *shurbet* with the white snows of her Cashmerian home.

"I will be true—I will be true," started to say Silas P. Warner, of U. S. A.—but his fiancee, Milly F. Hunsacker told him to "stow it." Milly wasn't the daughter of a Pickled Cabbage King for nothing. She was—just one-fourth Greek, one-fourth French, and one-half American—and she could tell the number of hairs on your head, and the number of stones that paved Broadway. So instead of listening to Silas's "chanty" she rang the bell and finished it for him in the following manner :—

"I got a new man coming to live in *my* house. Poppa's engaged him so you can't fire him case you want to. There ain't a thing worth doing in life he hasn't done—he's a sight better lookin' than you—and I find him mighty attractive. We got to run in double harness cos Poppa wants it, and long as you runs steady Denny sits at the wheel; but soon as you go crooked I ask Denny to the back seat in the auto with me." —With which words she introduced Silas P. straight to Dennison the new Chauffeur—Dennison who wore his silver-sprinkled crinkly black hair brushed straight back off his forehead and had twinkly blue eyes with black shading around them.

"There are attractions in every man's—" began Silas, "I know that, " said Milly kindly, " that's why I jest wanted to say there's going to be this big one right here in the house for *me*."

"I will be true," stammered Silas weakly—and history says he really was.

MIRIEM KHUNDKAR

MITES FROM MANY[1]

II.

I.—Song and Love.

The body's more than cells,
 The sun is more than rays,
But thought is more than man—
 So Truth for ever says.
The singer dies, the song stays,
 By Life's own heart 'tis sung,
The singer's but a name,
 The song Life's heart and tongue.
The Name may have all praise;
 The song was his, 'tis mine,
In Love's unnumbered ways
 In endless tunes to shine.—*Modern.*

II.—Love's Worth.

(1)

Sorrow and joy are not for one
 Whose heart's unknown to love;
Sorrow and joy are his alone
 Who love puts life above.—*Ramnidhi Gupta.*

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[1] The lines (No. 7) published, under the above heading, in the June number of this *Review* and commencing with the line "Should Fate condemn this faithful heart" were

(2)

Love of true men is true gold,
Test of fire makes worth twofold.—*Vidyāpati.*

(3)

Listen, listen, O Charming One,
By Love's sweet wine bemus'd,
A prisoner once is never free,
A thief that's self-accus'd.—*Chandidas.*

(4)

Love blesses him who loves full heart,
He Beauty sees nor end nor start.—*Ibid.*

(5)

I do not love to buy back love,
For love itself is joy,
And love, less lov'd for other joys,
Shall surely love destroy.—After *Chandidas.*

(6)

I care not be Thou good or bad,
Be cruel Thou or kind,

---

on the authority of "Sahitya Darpana," given as "anonymous." Professor Peterson of, Bombay, however, in the Introduction (page 46) to his edition of "Subhasitavali of Vallabhadeva" traces the authorship to the Buddhist monk Dharmakirti, a poet, philosopher and rhetorician of unknown date, not later than the 14th century.

Bare Thou to eye of love. May I
  For love, no reason find!
That love is love, because 'tis love,
  With reason unwrit on face,
That love for which a reason stands
  Is love that's false and base.—*Modern.*

(7)

My love for Thee let be my death
  For me Thy love may never be!
Let blood-smear'd heart cry, labour'd breath
  Forget that there is love in Thee.—*Modern.*

(8)

To have Thy Love I love not Thee,
Not Thee to love is not to be.—*Sridhar Kathak.*

(9)

Love can ne'er be given as alms.
Hearts unite, unasked love comes.—*Ramnidhi Gupta.*

(10)

Love's first fervour draws her on,
  Hindrance none her binds,

Forth alone she goes for love,
Path, unpath unminds.
Deep the darkness of the night,
Heart-light Love affords;
Cuts down journey's dangers all
Love's unfailing swords.—*Vidyāpati.*

(11)

The night has dawned with grace for me,
My lover I have seen;
My life, my youth have borne full fruit,
Now peace all heav'n-points mean.
My home is now my home indeed,
This earthly form my own;
The Fates with me are friendly now,
My doubts for ever gone.—*Ibid.*

III.—Love's Lights and Shades.

(1)

How wondrous is Thy love, O Love,
How wondrous is its might!
World's night is day to me, O Love
And world's bright day my night.

I've made my home the stranger's land,
The stranger's land my home;
To me am I a stranger now,
The stranger's me become.—*Chandidas.*

(2)

From Thee this pain. 'Tis sweetness, Love,
This pain is Thy love-bite,
The more the pain the more the joy,
To die for Thee its height.—*Modern.*

(3)

Full measure of sweetness who can wrest
From out the sweet cane, lightly prest?—*Vikatanitambā.*[1]

(4)

The forest fire is seen of all,
My love-fire there is none to see,
The forest gone, the fire is out,
My heart-fire rages ev'r in me.—*Bengali Song.*

(5)

Is this my love be-known of Thee?
Repent, my heart, let none it see.—*Modern.*

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[1] Sarangadhara Paddhati (edited by P. Peterson—No. 3671).

(6)

Of knowing cast the burden out,
With love thy heart but fill;
Thy pain of flesh, thy ties of heart
Thy love with love will kill.—*Modern.*

(7)

Now heart's in heart, may life ne'er end!
When heart's away, may death befriend!
—*Bengali Song.*

(8)

Now heart and heart in one heart dwell;
The one from one can any tell?—*Ram Basu.*

(9)

To care for love is but a wish,
Love owner than I'm own;
To care for me a task indeed,
For love a wish alone.—*Ramnidhi Gupta.*

(10)

Years have passed with love surmounted,
Heart with heart yet half acquainted,
Tale of love but half-recounted.—*Bengali Song.*

(11)

I cannot love as I wish to love,
  My anger rises high,
What harm's my love to any one
  That'd power to love deny?—*Modern.*

(12)

I see my heart with evil fill'd
  My hate of me takes fire,
O why with love thou, Beauty pure,
  Upstir this stinking mire?
"The musk-deer scents the forest site,
  The diamond grows in cave,
In mire the lotus—why not love
  In one you call my slave?"—*Modern.*

(13)

The world within and world without,
  So full of sin and ugliness,
When burnt in love are crystal-pure,
  Fit Beauty for my God's caress.—*Modern.*

(14)

Years have passed by heart-beat's count,
  Wait I His return;
Heart-lamps, fed with dearness oil,
  Greetings Himward burn.—*Modern.*

(15)

The past? There is no past for me,
He's come and I am born,
The I that was is not I am,
The night was night, 'tis morn.—*Modern.*

MOHINIMOHAN CHATTERJI

"THOU AND I"

Thou art the mighty oceantide,
And I the airy foam;
Dancing ever in thoughtless pride
On thee my boundless home.

Thou art the giant forest tree,
And I the creeper frail;
I flirt with the breeze, but cling to thee
That scorn'st the whirling hail.

Thou art the great glorious sun,
And I the restless star;
I flash my light from thy bounty won,
Thou shinest still and far.

V. B.

ON A UNIFORM *BRAILLE* SYSTEM FOR INDIAN VERNACULARS.[1]

The history of the education of the blind in India has not been written yet, but the future historian of this department of God's work done in India will not need to go beyond some forty years ago, when the missionaries turned their attention to this matter. Not much has been done yet. The public in India is ignorant of what can be done, and as begging is a fairly paying profession for the blind, it can afford to be indifferent. The Government has completely failed in its duty to these unfortunates. Even those who are engaged in trying their little best to help the blind seem to have forgotten that they cannot go far, unless they keep up a constant agitation to rouse public conscience and lead the people and the Government of India to do their duty. At present there are about 10 schools for the blind in the whole country, which provide for the education or industrial training for about 400 out of 600,000 blind in India.

It was about the beginning of the sixteenth century that the first attempts at the education of the blind were made in Europe, particularly in Italy, Spain, Switzerland and Germany. But it was in 1785 that the first school for the blind was started in Paris by Valentin Hüay, who later, at the request of the King of Prussia and the Emperor of Russia, also started schools at Charlottenburg and St. Petersburg. The first school in England was started in 1791 by a blind man, Edward Rushton, at Liverpool, and so the work in Europe has gone on, in a fairly systematic manner for the last 150 years.

In the early days letters of the alphabet cut in wood and cardboard were used in the education of the blind, but

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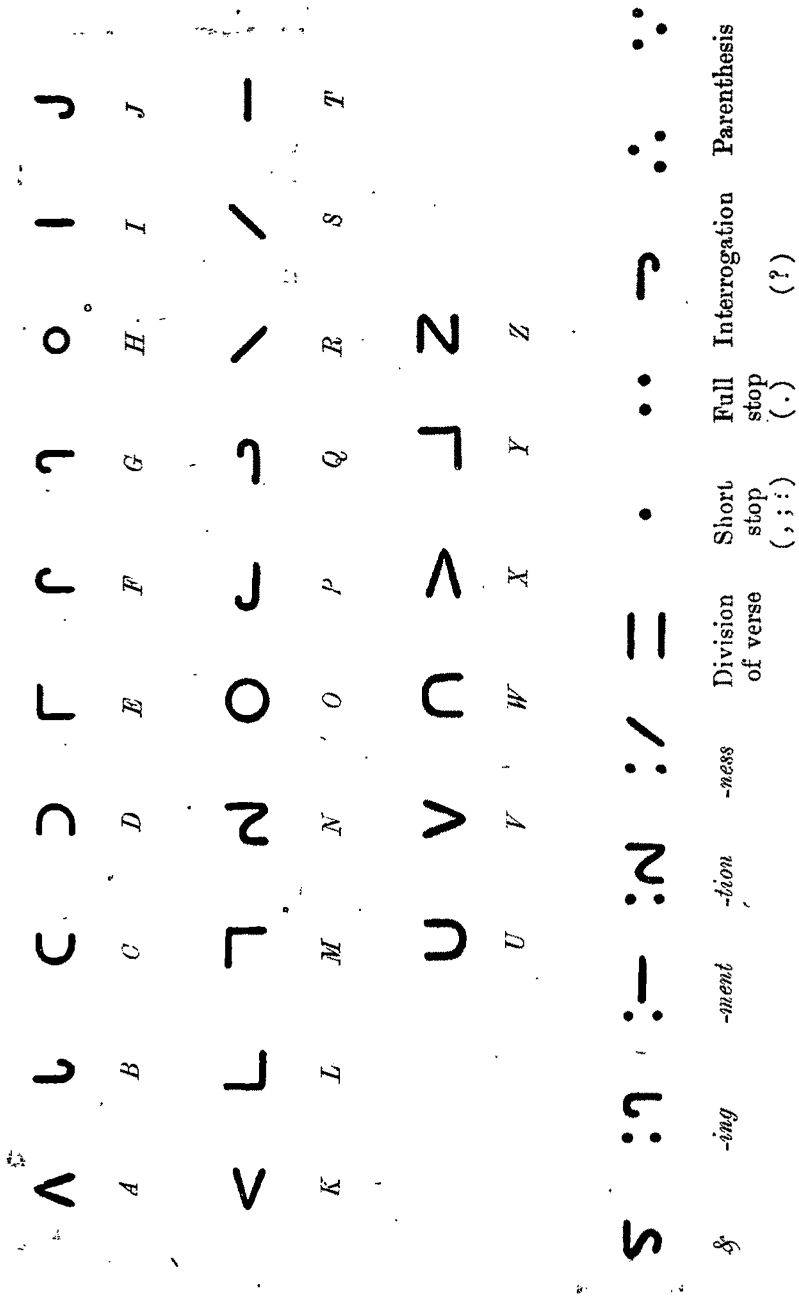
[1] A paper read before the Second Oriental Conference held in Calcutta, January, 1922.

Hüay first printed books for the blind in raised characters. Attempts were made to reform the type, and various systems were put forward, until in 1847, Dr. Moon supplied a system, in which the general form of the Roman characters was retained, but they were greatly abbreviated so that the blind could easily read with their help (fig. 1) and the scripture has been written out in this type in more than 400 different languages of the world. The writer was told that some of the Indian languages were among those 400, but he has not yet been able to get a book in any.

But it was not enough that the blind should only be able to read, for in none of these systems could anything be written by the blind. But an improvement which made writing possible for the blind was not long delayed. Early in the 19th century Captain Charles Barbier substituted embossed dots in place of embossed lines and invented the writing slate for embossing these points. He divided up the sounds of the language into six lines of six each and arranged the embossed points in two vertical columns of six each, the number of the point in the first column indicated the line in which the sound occurred, while that in the second column indicated its position. The defect of this system was that the length of each "cell" was too great to be covered easily by first joint of the finger in reading; but still it was a great step in advance.

Louis Braille was born in 1809. At the age of three he became blind, and received his education at the "Institution Nationale des Jeunes Aveugles," the first school started by Hüay, where he was afterwards appointed as a professor. He set himself to improve the type and in 1834 perfected his system, which has now been adopted all the world over as the one best suited for the education of the blind. Two other systems were later adopted for use in America. The "American Braille" was an attempt to facilitate things by using only such of the Braille signs which were easy to emboss and by


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
&
-ing
-ment
-tion
-ness
Division of verse
Short stop (, ; :)
Full stop (.)
Interrogation (?)
Parenthesis

MOON TYPE.

Fig. 1.

assigning the more easy signs to letters of the alphabet which occurred most often. The "New York Point" was invented in order to save space and make books for the blind less bulky. But recently a "Commission on Uniform Type for the Blind," which was appointed to go into the matter very carefully, has finally decided that both the American systems should be given up in favour of Braille, and in order to secure uniformity for all English-speaking countries they have adopted it in much the same form in which it is used in English.

The Braille System consists of combinations of six dots arranged and numbered as in fig. 2. These are taken from one to six at a time, and altogether 63 combinations can be thus obtained; each of these can be used to represent a letter of the alphabet, a number, a sound, or a part of a word or a sign, according to the language or the subject matter for which it is used. Each sign in the Braille notation is about a quarter of an inch long and an eighth of an inch broad, and can therefore be easily covered by first joint of the finger while reading.

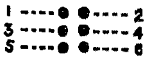


Fig. 2.

For writing a ruler is used, consisting of a metal bed marked by groups of little pits, each group consisting of six; over this bed is fitted a brass guide, punched with oblong holes (fig. 3). The pits are arranged in two parallel lines and the guide is hinged on the bed in such a way that when the two are locked together the openings in the guide correspond exactly to the pits in the bed. The brass guide has a double row of openings, and this enables the blind person to write two lines and when these are done, the ruler is shifted downwards until two little pins which project from the under surface at its ends, drop into corresponding holes of a wooden board, when two more lines can be written and so on to the bottom of the page. The paper is introduced between the guide and the bed and is held in position by a clamping

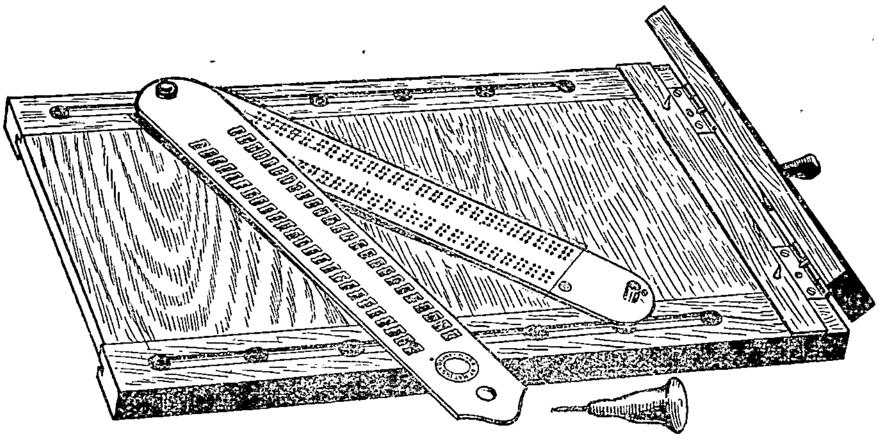


Fig. 3.

arrangement at the top of the wooden board. The instrument for writing is a blunt awl, which carries with itself little caps of paper into the pits of the bed, thus producing a series of little pits on one side and little prominences on the other side of the paper. For reading, the paper is taken out, and turned over. The writing is done from right to left and the reading from left to right, but this does not make things difficult as in each case the hand proceeds forward.

Seven of the Braille signs, namely those obtained by the combinations of dots 2, 4, and 6, cannot be easily distinguished from seven other signs similarly obtained from dots 1, 3 and 5. Braille therefore placed these apart in a separate line at the bottom, for use in combination with other signs in making up contractions and also for such signs as are less frequently used. The remaining 56 signs he arranged (fig. 4) in six lines: five lines of ten signs each and one of six. In the *first line* the ten signs are formed only by dots 1 to 4, so that each of these contains either or both of the dots 1 and 2. Dots 5 and 6 are entirely absent. The *second line* has ten signs formed by adding dot 5 to each of the signs in Line I; while the ten signs of *Line III* are made up by adding dots 5

THE ENGLISH BRAILLE

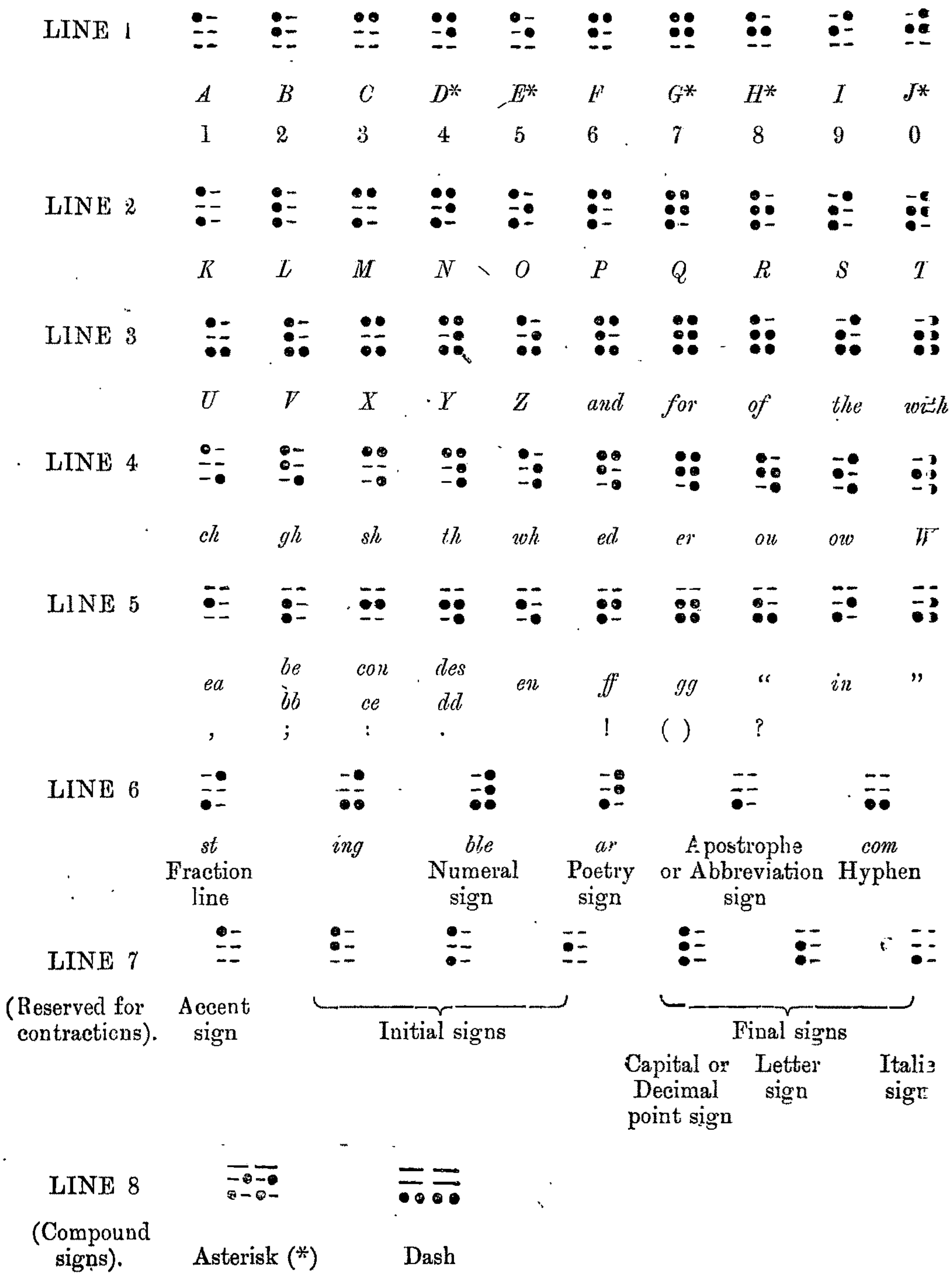

LINE 1
A *B* *C* *D** *E** *F* *G** *H** *I* *J**
1 2 3 4 5 6 7 8 9 0
LINE 2
K *L* *M* *N* *O* *P* *Q* *R* *S* *T*
LINE 3
U *V* *X* *Y* *Z* *and* *for* *of* *the* *with*
LINE 4
ch *gh* *sh* *th* *wh* *ed* *er* *ou* *ow* *W*
LINE 5
ea *be* *bb* *con* *ce* *des* *dd* *en* *ff* *gg* “ *in* ”
, ; : . ! ( ) ?
LINE 6
st Fraction line
ing
ble Numeral sign
ar Poetry sign
Apostrophe or Abbreviation sign
com Hyphen
LINE 7
(Reserved for contractions).
Accent sign
Initial signs
Final signs
Capital or Decimal point sign
Letter sign
Italic sign
LINE 8
(Compound signs).
Asterisk (*)
Dash

Fig. 4.

and 6. *Line IV* contains 10 signs formed by adding dot 6 to each of the signs in Line I. *Line V* is obtained from Line I by moving each sign one space lower, so that all signs are formed from dots 3 to 6 and do not contain either of the dots 1 and 2. *Line VI* contains the remaining six signs and *Line VII* consists of the seven signs made up of the even dots only, as mentioned above, and is set apart for special use. Lines II, III, IV and V are thus all derived from Line I by a simple rule, and when the first line has been learnt the other four can be easily derived. This arrangement is a great help to memory and has other advantages besides. The first ten signs also denote the ten digits for numerical notation and the last seven signs in each line form an octave for writing music.

But Braille did not go in for all the symmetry of arrangement that was possible. The signs in Line I (and therefore in each line) are capable of a further symmetrical arrangement which is absent in Braille's plan. Five out of the ten signs in Line I contain dot 4 and can be derived from the other five not containing this dot by the addition of it.[1] Thus we get five pairs, the first members of which are obtained from combinations of dots 1, 2 and 3 only. These are capable of being arranged systematically. The first pair is obtained by using dot 1 only as the first member, the second is obtained from this by adding dot 2, the third by adding dots 2 and 3, the fourth by adding dot 3, while the 5th contains only dots 2 and 3, dot 1 being absent. This makes the arrangement of signs in Line I correspond exactly to the arrangement of the lines in relation to one another. It is not known why this arrangement was not adopted by Braille; perhaps it did not occur to him. It would help memory and had it been adopted from the first it might have helped to distinguish between odd and even numbers in a simple way. As can be seen six signs in the new arrangement proposed are in the same positions as in the English system (fig. 6).

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[1] These are the signs marked with an asterisk in fig. 4.

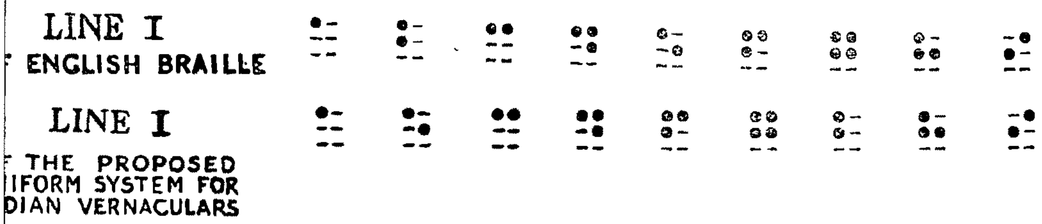

Fig. 5.

Another symmetrical arrangement possible is the one in 9 lines of 7 signs each. This can give as many as 9 octaves for the musical notation, but that is its only advantage. But so many octaves are not wanted, while it has besides so many other disadvantages that the other system is the best for adoption. And a system with a rearrangement of the Braille signs is very necessary, if the convenience of the learner is, as it ought to be, regarded as the most important consideration.

In 1869-70, the Council of the British and Foreign Blind Association, under the leadership of Dr. T. R. Armitage, after a very careful consideration of the matter finally adopted the Braille System for English. The original arrangement of the signs was accepted and as in French the first 25 signs were assigned to the letters of the Roman alphabet as used in French, while *w* which had been left out was assigned to the last sign in Line IV. The signs in Line V were alternatively assigned to punctuations and those in Line VI to other marks, while the signs which were not thus used up, were assigned to combinations of letters which occur very often in English as parts of words. The Americans have now accepted the same system, in spite of some of its faults, which they pointed out, in order to have a uniform system for all English-speaking countries.

But different languages have to make different demands upon the Braille, which it has satisfactorily met as is evident from the fact of its universal adoption. The greatest difficulty was Chinese. In this language there are over 4,000 characters, and to represent the language phonetically at least 408 different sounds were necessary. The difficulty was in a way overcome by assigning a number to each of the sounds and using the Braille to write these numbers.

All the Indian Alphabets are more or less completely phonetic in their nature and therefore make different demands upon the Braille than those made by the European Languages. The writer has before him the results of four different attempts made to adapt the Braille to Indian languages, —attempts which have led to different Braille systems being used in the various Schools for the Blind in India. Each of these systems claims to be the best suitable for all Indian vernaculars, and can indeed be adapted to any one of them with a few slight alterations, for the Indian vernaculars are on the whole very similar in their alphabets. A comparison of the ten alphabets, Devanagari (as used for Sanskrit), Bengali, Hindi, Gurmukhi, Gujarati, Marathi, Kanarese, Telugu, Urdu and Sindhi, shows that they all have ten vowels and thirty-two consonants in common, besides the *anusvāra*, and the punctuations and other marks which are common to all.

Obviously then, there should be one common system for all Indian Vernaculars, framed in such a way as to accommodate within its general plan the few peculiarities of each alphabet, without disturbing the common stock. The present state of confusion has been allowed to go on, because no one has cared to look at the subject from the point of view of the good of the blind all over the country. Each school was started as a *local* effort and had to adapt the Braille to the needs of the language of the province it served before work could be started. There has been no co-ordinating agency. Government has so far neglected to do its duty in the matter, as is evident from the fact that the Government of Bombay, while passing a resolution on the report of a Committee appointed to make recommendations on the subject of the education of the defectives, definitely permitted the use of *two different systems* for teaching Marathi in the two schools for the blind both situated in the city of Bombay! The result is that students educated in different schools cannot read each other's books and cannot correspond with each other. The general public is not aware of the mischief that is being allowed to grow, for as time passes and more persons come to be educated along different systems and more books are laboriously embossed with hand (for there is at present no embossing plant in this country), the vested interests, which are very difficult to manage even now, will grow and make the development of the education of the blind in India a very difficult and well-nigh an impossible task. Orientalists and philologists have been educating the country on the need of a common script for India: but in the Braille, though we have a common script, the difficulty is that one system makes one sign stand for *gh* while the other three make it stand for *d*, *j* and *ai* respectively. Scholars of oriental languages are perhaps the best authorities on the subject and if they took the trouble to study the Braille notation and the problem with which the present paper deals, they could not only educate the public on the subject, but could also work out the best Uniform System, for they alone have the necessary knowledge of the comparative needs of the different languages.

The author of this paper is neither a philologist nor a teacher of the blind. He was, however, called upon to study the Braille in order to adapt it to Sindhi, his mother tongue, for use in a school for the blind, which was about to be started at Karachi; and he was thus led to study the subject very carefully. What follows is put forward as a result of this study for criticism and improvement by those who are more competent to deal with the matter, in the hope that the discussion which will follow might lead to the early adoption of a Uniform System of Braille for Indian Vernaculars.

A Uniform System of Braille for Indian Vernaculars ought to satisfy (among others) the following conditions :—

(1) The Braille Signs must be arranged according to a definite plan, which makes it easy to remember them and also makes it possible to adapt it so as to represent the common characteristics of the Indian Vernaculars.

(2) The phonetic and grammatical relations between the letters of the alphabets should be represented, if possible, by some simple relation between the signs assigned to them.

(3) The alphabets of these languages should be taught as far as practicable in much the same order in which they are taught to students possessed of sight. At any rate there should be a definite grouping of the five *vargas* or classes of the consonants possible.[1] This is particularly important, as in the case of most of the Indian languages, the alphabets are phonetically arranged.

(4) Provision should be made in the system for incorporation within it of the peculiar needs of each language without disturbing that portion which is common to all.

(5) Economy of writing space is a very important consideration in the case of embossed literature and therefore nothing should be done for the satisfaction of other conditions which would go against this economy.

It must be admitted that it is impossible from the nature of the Indian Vernaculars to satisfy *all* these conditions. For instance the alphabets used for Sindhi and Urdu are based on the Arabic and those of the other Indian languages on the Sanskrit and a Uniform Braille System can only be taught in one way. Again in both these languages several letters represent the same sound, and in order to make them fit into a Uniform System with other Vernaculars, which have only one letter for one sound, only one sign is allowed for a number of letters having only one sound. But a Uniform System,

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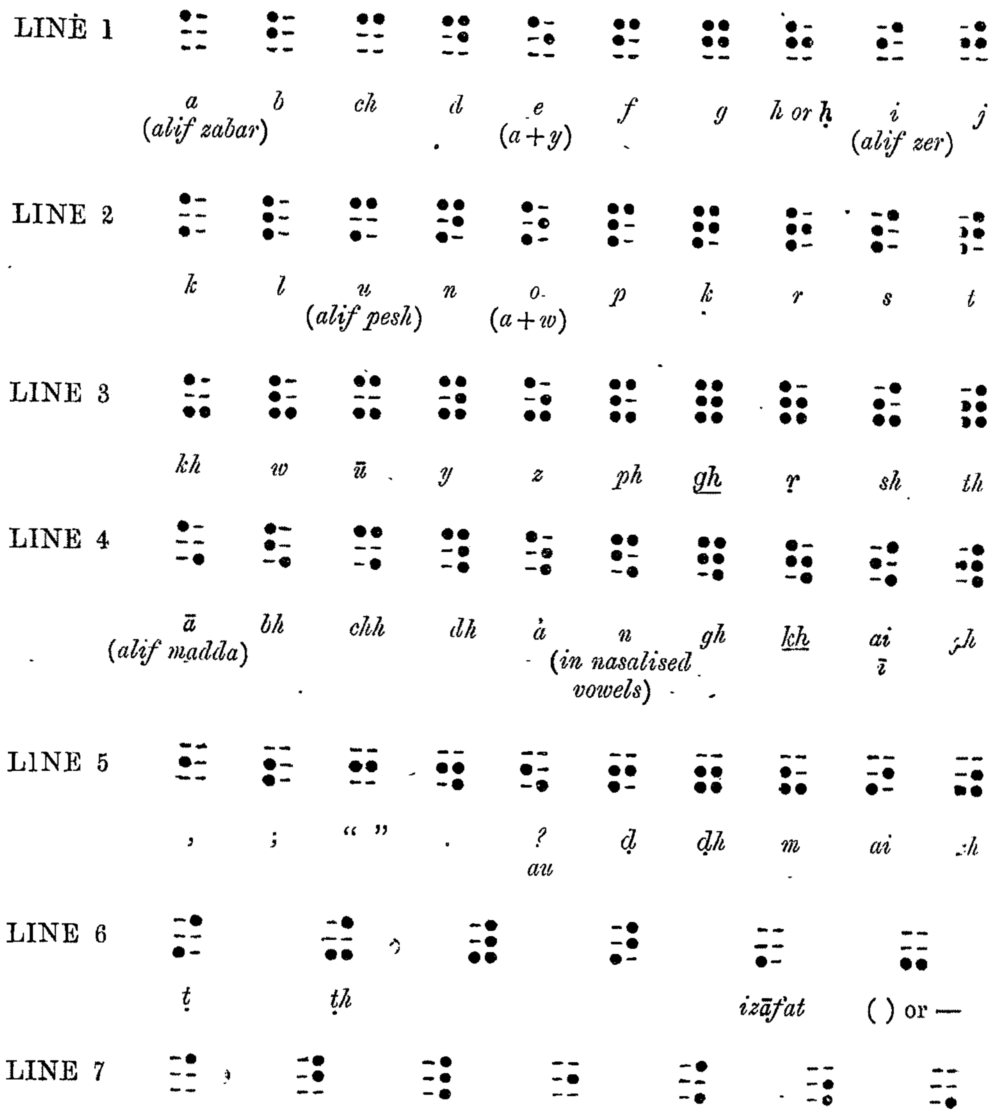
[1] As will be seen in the sequel the case of Urdu is quite distinct.—I. J. S. T.

THE "URDU AND HINDI" BRAILLE

(*Sheriff's System*)

(The transliteration is given in roman following Footes *Hindusthani Grammar.*)

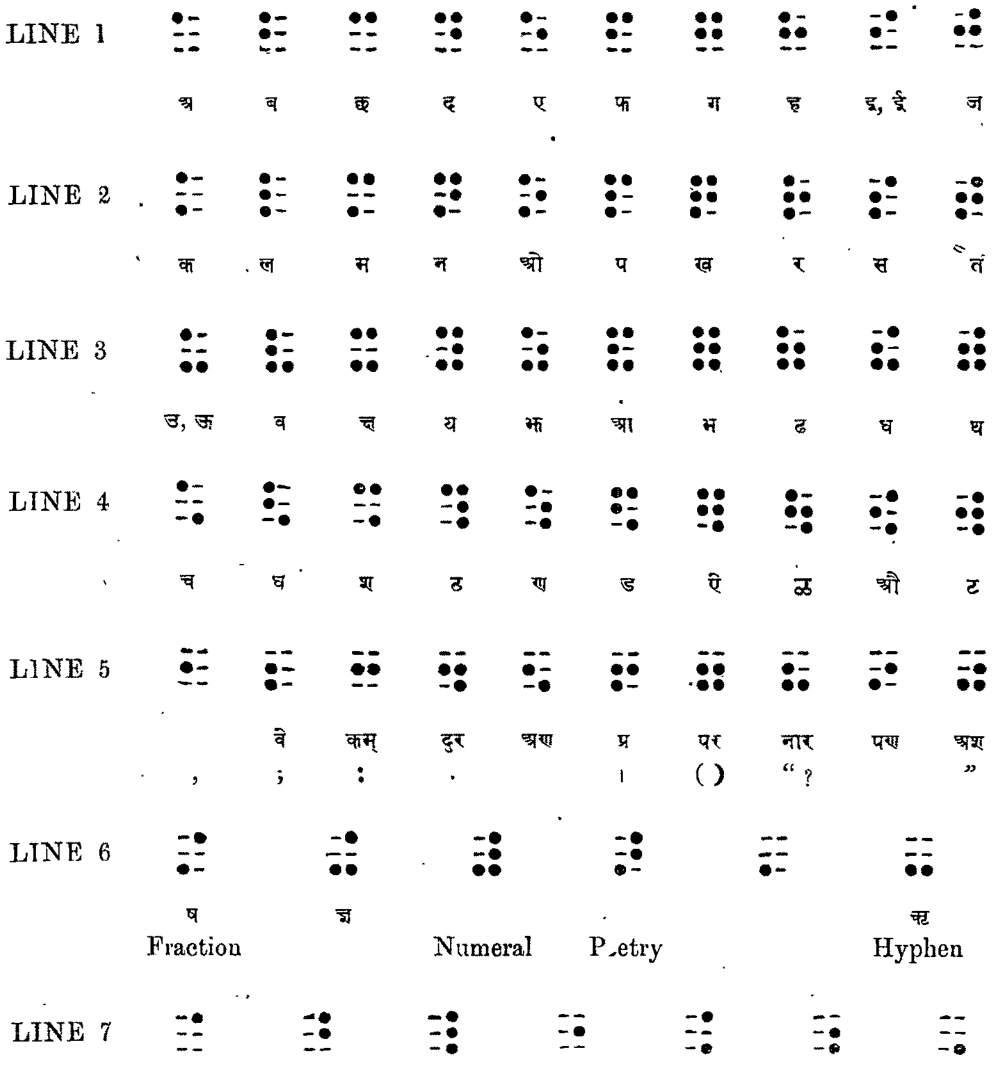

LINE 1
a (alif zabar)
b
ch
d
e (a+y)
f
g
h or ḥ
i (alif zer)
j
LINE 2
k
l
u (alif pesh)
n
o (a+w)
p
ḳ
r
s
t
LINE 3
kh
w
ū
y
z
ph
gh
ṛ
sh
th
LINE 4
ā (alif madda)
bh
chh
dh
ȧ
n (in nasalised vowels)
gh
kh
ai
ī
jh
LINE 5
,
;
" "
.
?
au
ḍ
ḍh
m
ai
ṛh
LINE 6
ṭ
ṭh
izāfat
( ) or —
LINE 7

(Reserved for forming contractions.)

Fig. 6.

THE "INDIAN BRAILLE"

(Dr. Nilkanthrai's System).


LINE 1
अ ब छ द ए फ ग ह इ, ई ज
LINE 2
क ल म न ओ प ख र स त
LINE 3
उ, ऊ व त्त य झ आ भ ढ ध थ
LINE 4
च घ श ठ ण ङ ऐ ळ औ ट
LINE 5
वे कम् दुर अण प्र पर नार पण अश
, ; : . । ( ) “ ? ”
LINE 6
ष ञ क्ष
Fraction
Numeral
Poetry
Hyphen
LINE 7

(Reserved for forming contractions.)

Fig. 7.

which will go a great way to satisfy all the five conditions (laid down above) for *most* of the Indian Vernaculars and which will supply the best possible plan for the remainder, is possible and it is the purpose of this paper to examine that possibility. It would however be useful to pause here and see how far, four of the systems at present used in India, satisfy the above conditions.

Sheriff's system of "Urdu and Hindi Braille" (fig. 6) is in use at the schools at Ranchi, Rajpur and Lahore. It is probably the oldest used in India. The Braille Notation is arranged as in English, without any reference to the needs of the Vernacular. But an attempt is made to show the phonetic relations between sounds, *e.g.*, by deriving most of the aspirated consonants from the corresponding unaspirated consonants by adding dot 6, and by deriving long vowels from the corresponding short ones in the same way. The alphabet is arranged neither in the way in which it stands in Urdu, nor in the more systematic way of Hindi. But an effort is made to represent corresponding sounds in English and the Vernaculars by the same signs. In this connection it is unfortunate that signs chosen for punctuations do not correspond in all cases with those of the English system. If it be accepted that the traditional phonetic arrangement of Indian alphabets is not an important consideration then this system can be applied to all Indian Vernaculars with a few simple alterations.

Dr. Nilkanthrai's "Indian Braille" (fig. 7) also accepts the English arrangement without modification. But in it no effort has been made to show the relation between phonetically related sounds. A number of sounds which occur in Gujarati and Marathi (for which languages it is primarily intended) do not occur in English, and these are denoted by signs which represent similar sounds.[1] But it is claimed for this system that by adopting the 5th line for a number of contractions

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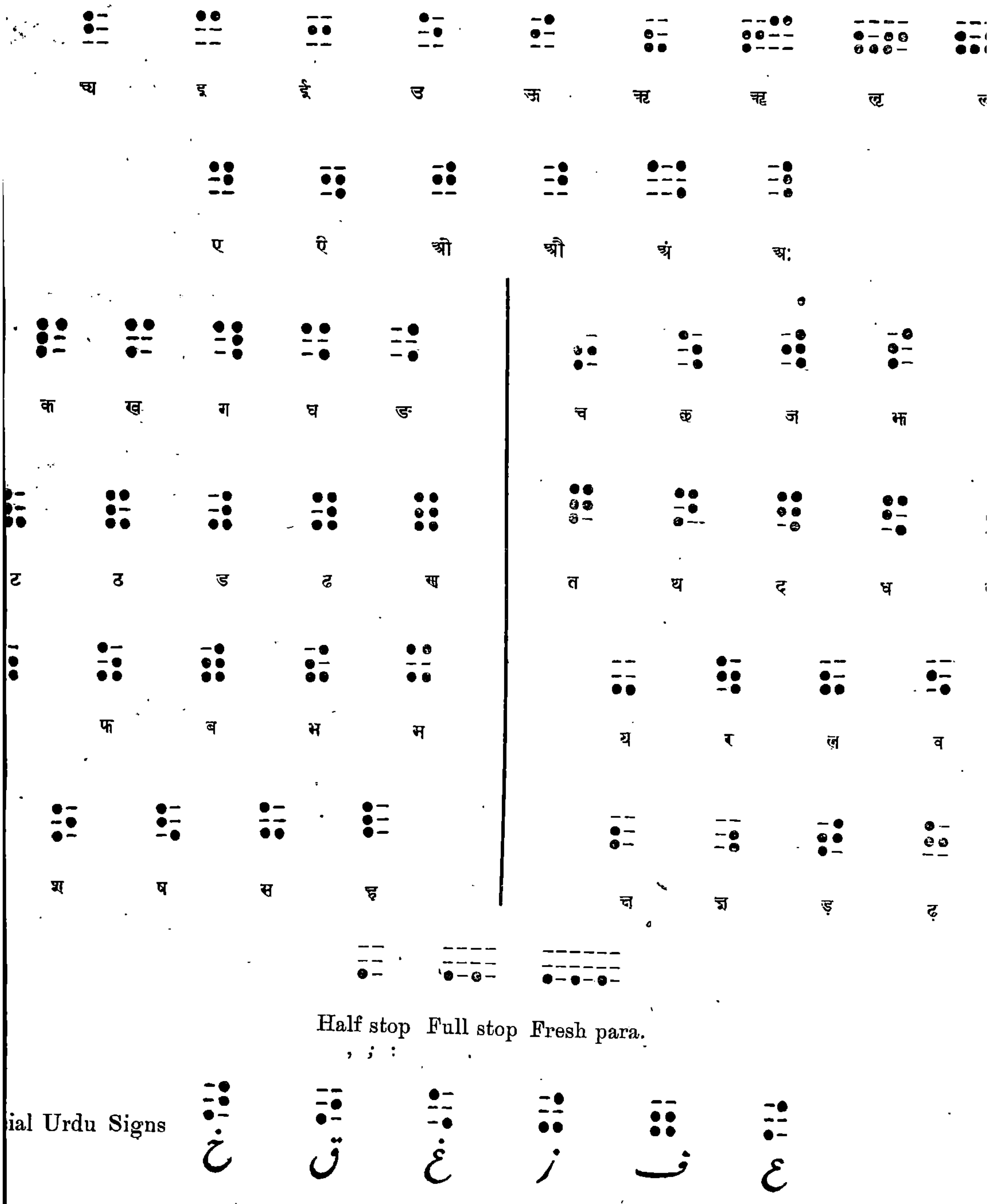
[1] Such as ध and *the*, थ and *with*, औ and *ow*, etc.

THE "ORIENTAL BRAILLE."

(KNOWLES AND GARTHWAITE SYSTEM.)


आ
इ
ई
उ
ऊ
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ॠ
ऌ
ए
ऐ
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औ
अं
अः
क
ख
ग
घ
ङ
च
छ
ज
झ
ट
ठ
ड
ढ
ण
त
थ
द
ध
फ
ब
भ
म
य
र
ल
व
श
ष
स
ह
त्र
ज्ञ
ड़
ढ़
Half stop
Full stop
Fresh para.
, ; :
.
ial Urdu Signs
خ
ق
غ
ز
ف
ع

Fig. 8.

considerable saving of space is attained. This system cannot be used as a basis for a Uniform System as it absolutely lacks a plan.

Knowles and Garthwaite's system of "Oriental Braille" (fig. 8) which was in use at Bombay for Marathi, at the Miss Millard School for the Blind, before the "Indian Braille" was used for teaching the same language at the Victoria Memorial School, was framed with a view to give full consideration to the peculiarities of Indian languages while adapting the Braille to them. In this system, the idea of arranging the Braille signs on a definite plan is given up, in order to keep to the arrangement of the Indian alphabets. Great care has been taken to make evident the phonetic relations between the different letters of the alphabet. The long and short vowels are represented by signs which resemble each other, though they are not derived one from the other by one simple uniform rule. In some cases compound signs are used to show the compound nature of the vowels. In the five *vargas* the sonants and surds are mirror images one of the other, and the aspirated consonants are derived from the corresponding unaspirated ones by omitting dot 2 for surds and dot 4 for sonants. Throughout there is evidence of the care with which the authors of the system have sought to make it suited to the scientific nature of the arrangement of Indian alphabets. But as will be shown presently, a more systematic arrangement than this can be obtained without giving up the well-planned arrangement of the Braille Notation itself. This in fact constitutes the greatest defect of this system. As many as 11 out of the 56 Braille signs have not been used, while both in the body of the alphabet and for many of the punctuations compound signs have been used at the cost of writing space.

The "Shah Braille" (fig. 9) as used for Bengali at the Calcutta School for the Blind is a later and improved edition of the "Oriental Braille" in which all compound signs have been dispensed with, and the signs used for punctuations

THE SHAH BRAILLE.

(In use at the Calcutta School for the Blind.)

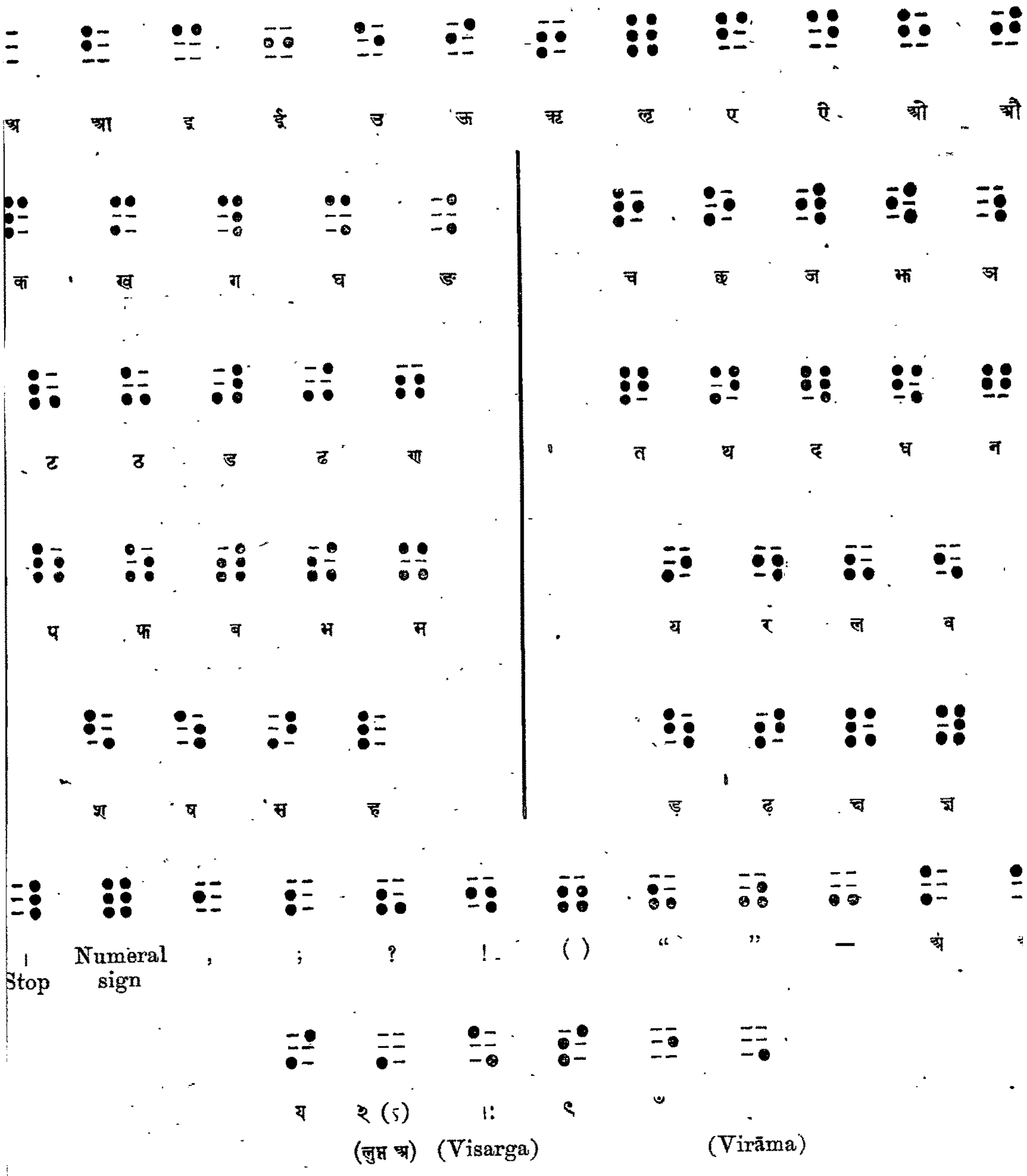
अ आ इ ई उ ऊ ऋ ऌ ए ऐ ओ औ
क ख ग घ ङ
च छ ज झ ञ
ट ठ ड ढ ण
त थ द ध न
प फ ब भ म
य र ल व
श ष स ह
ड़ ढ़ क्ष ज्ञ
। Stop
Numeral sign
,
;
?
!
( )
“
”
—
ं
ँ
य
२ (ऽ) (लुप्त अ)
ः (Visarga)
ৎ
ँ
(Virāma)

Fig. 9.

are, as they ought to be, the same as in English. Its great defect is that the Braille Notation itself has not been arranged on some plan which could make it easy to remember as a whole. Also the sign used for distinguishing numerals from the letters of the alphabet is different from the one used in English, which is another serious defect, because the system of numerals need not change however much the languages may differ.

The system that is proposed here as better than any of these four is based upon the following considerations. In ten of the Indian languages mentioned above, we have ten vowels common, which form five pairs consisting each of a 'short' vowel and a corresponding 'long' one. The five *vargas* of consonants are common to all the languages mentioned above. These consist of unaspirated consonants, the first and third of each *varga*, forming five pairs; then five pairs more of aspirated consonants; five nasals; one general aspirate (*h*) and four semi-vowels; and three sibilants and the *visarga*.

The Braille Notation is here arranged the same way as in English as far as the Lines are concerned, but the ten signs in each line are re-arranged in pairs after the manner already indicated, which makes the arrangement more symmetrical and therefore easier to remember.[1] The first line represents the five pairs of *vowels*:

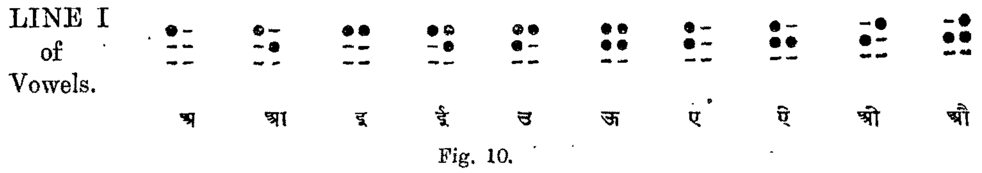

Fig. 10.

The second represents the five pairs of *unaspirated consonants* of the five *vargas* in regular order:

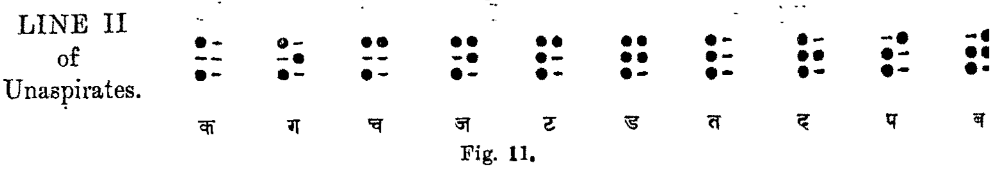

Fig. 11.

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[1] Of course the *numerical* values remain as in the English Braille as these are international, (see fig. 4.)

The third represents the corresponding *aspirated consonants*:

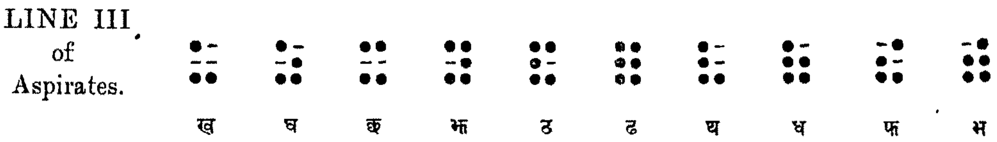
LINE III
of
Aspirates.
ख
घ
छ
झ
ठ
ढ
थ
ध
फ
भ

Fig. 12.

The fourth is divided up into two halves, the even signs, being called line IVA, are assigned to the five *nasals* and the odd (IVB) to the *aspirate* (*h*) and the four *semi-vowels*:

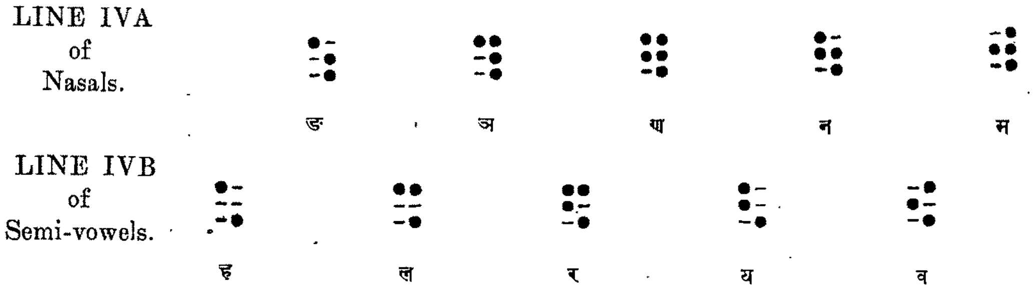
LINE IVA
of
Nasals.
ङ
ञ
ण
न
म
LINE IVB
of
Semi-vowels.
ह
ल
र
य
व

Fig. 13.

Line V represents the punctuations as in English and alternately the peculiar sounds in each language and is called the *Special Line*[1]:

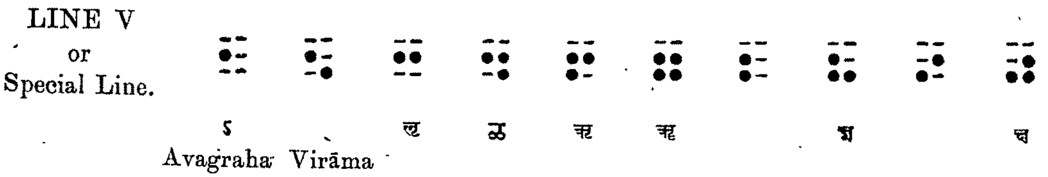
LINE V
or
Special Line.
ऽ
Avagraha
्
Virāma
ऌ
ळ
ऋ
ॠ
क्ष
ॡ

Fig. 14.

The sixth line is given to the *anusvara*, the *visarga* and the *sibilants*:

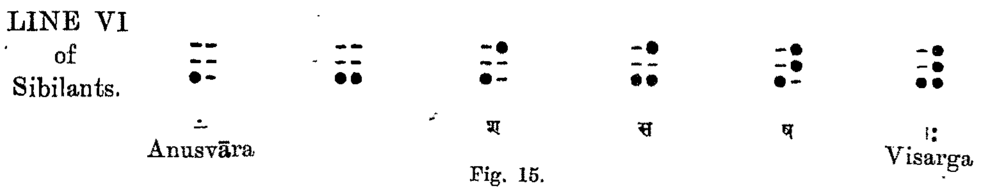
LINE VI
of
Sibilants.
ं
Anusvāra
श
स
ष
ः
Visarga

Fig. 15.

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[1] In this line only the Nagari equivalents are here given.

The seventh line is the same as in English Braille and it is not proposed to make any use of it at present:

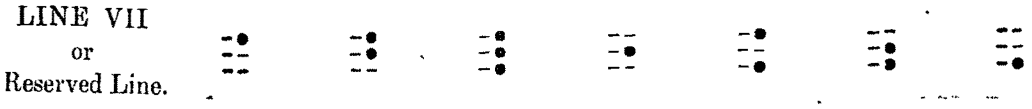

Fig. 16.

It will be seen that in the first four lines the even signs are obtained from those preceding them by the addition of dot 4, and in lines V and VI by the addition of dot 6. In all cases, long vowels are obtained from the short ones by adding dot 4 and similarly are the sonants (or voiceless consonants) obtained from surds (or voiced consonants) in lines II and III. The five consonants of each of the *vargas* occurring in lines II, III and IVA can be easily read off in vertical columns. The order of the semi-vowels has been slightly altered to relate the *y* and *v* to the corresponding *guṇa* vowels *e* and *o*, while the *ri* and *li* stand in a simple relation to the consonants *r* and *l*.

In the case of Urdu and Sindhi, the order of the alphabet has had to be changed for the sake of uniformity with the rest of the languages. These languages are both derived from the same common source as the other Indian languages, but under Moslem influence have added a large number of words of Arabic and Persian origin to their vocabularies. These latter necessitated the addition of special letters to these two alphabets to represent sounds which did not exist in the original; and ultimately alphabets based entirely upon the Arabic alphabet were adopted. With the adoption of the Arabic alphabet, a number of letters having nearly the same sounds were introduced; but these differences in sound, though found in the original Arabic, are entirely lost in these Indian Vernaculars, as is also nearly the case in Persian. As at present pronounced, both in Urdu and in Sindhi, no difference is made between the two *he*'s (*ḥ* and *h*), between *alif*, *$\overset{c}{a}$in* and *hamza* (*a*, *$\overset{c}{a}$ and* '), between *z̲al*, *ze*, *ẓad* and *z̤o* (*z̲ z ẓ* and *z̤*), and between *s̤e*, *sīn* and *ṣad* (*s̤*, *s* and *ṣ*). In the Braille therefore only one sign is assigned to each of these sets of phonetically equivalent letters of the Sindhi and Urdu alphabets.[1]

In arranging the peculiar sounds of each vernacular among the signs in line V, an attempt has been made to arrange them so that they fit in phonetically with the rest of the alphabet, but this has not been always possible and the difficulty was found to be greatest in the case of Sindhi and Telegu owing to the large number of sounds needing accommodation here. The only way to give them their phonetically[2] proper places was by the use of compound signs, and this had to be strictly avoided. Line VII remains untouched, to be used, after uniformity has been attained, for forming compound contractions, as in the English Braille.

The purpose of the paper is to draw the attention of the people and of the Government of India to the urgency of looking into this matter and thus hasten the appointment of a Committee consisting of Linguists, Teachers of the Blind, and Educationists to go into the matter carefully and frame a definite scheme for adoption as a Uniform System in India. The scheme herein proposed is but a suggestion for the framing of such a system, and in the estimation of the author better than any of the four that have preceded it.

In the end I have the pleasure to record my heartfelt thanks to Dr I. J. S. Taraporewala of the Calcutta University for the great help I have received from him in completing the present scheme. I have also to thank Mr. Bijoy Chandra Mazumdar of the Calcutta University and Prof. R. L. Turner of the Benares Hindu University for their valuable suggestions and encouragement, without which the writing of this paper would not have been possible. I have also specially to thank Sir Asutosh Mookerjee, the great Vice-Chancellor of the Calcutta University, and Chairman of the Reception Committee of the Oriental Conference, for his ready acceptance of this paper and the promise of his valuable support in carrying forward the cause to a successful issue.

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[1] See note on the chart at the end.

[2] It must be specially noted that the Braille signs are not phonetic but *alphabetical* in the essence and so unless there are two *letters* to differentiate two sounds as in Telugu *c* and *c'* no attempt has been made at differentiation—I. J. S. T.

[A full chart of the system here advocated for all the principal Vernaculars of India—including the Dravidian—will be given next month—Editor, *Calcutta Review.*]

P. M. ADVANI

VENGEANCE IS MINE

BOOK II—CHAPTER III

OLD DREAMS AND NEW SCENES

Ramanlal took the reins himself and began to drive. He set the horse at a gallop as if a thousand lives were hanging upon his speed. Leaving all other carriages behind he arrived at Dumas with Jagat.

This was Jagat's first visit to that place, so that this was his first experience of the sweet, cool air of Dumas, and of its peaceful evenings when "a young man's fancy lightly turns to thoughts of love." His was an ardent nature and he had a well-cultivated taste for poetry. In his boyhood he had undergone one or two wondrous experiences, which now roused sweet memories of a beloved face. Jagat fully enjoyed the beauty of the place.

Raman drove along the sea-shore and thence to his cottage. Mr. Madhavdas was sitting on the verandah at the back with a friend. He put his hand to his forehead and peering into the gathering dusk looked attentively at the two who entered.

"Who is this with you, Raman ?"

"Father, this is Mr. Jagat, your friend."

"Who? Jagat! Welcome, my boy. How are you ? When did you come back from College ?"

"Three days ago, Sir. I hope you are quite well ?"

"Is this the son of Nilkanthrai ?" asked the other gentleman who was there. Jagat turned towards him and recognised him.

"Hallo! Uncle Harilal! What a surprise!" he exclaimed with a beating heart.

"Yes. It is I. But how tall have you grown in these five or six years!" he cried; and rushing up to him embraced him affectionately. "I had heard of your successes. Tanman remembers you constantly."

Jagat had wished to inquire about her the first thing, but only now could he gather courage to speak of her.

"Where is she?"

"Who? Tanman? She must be with her mother. We are in the next cottage yonder. I will send for her. Rama, go and fetch your young mistress."

Since leaving Ratnagadh, Harilal had a stroke of good fortune and of paralysis. So he had retired to Dumas on a pension and was employing his leisure in indulging his only daughter and his young wife.

"Where is Mani?" asked Jagat.

"Mani is sure to be there too," replied Madhavdas. Mani was his daughter.

But Jagat was thinking of some one else. The memories of six years ago were reviving in all their fresh and tender sweetness. As he stood talking there with the two old gentlemen his mind went back in the temple of Rama at Ratnagadh. His ears were strained to catch the well-known footsteps upon the steps of the cottage. Soon his eager ears had their reward, the dear steps were approaching. The blood surged with sudden force into his heart. He hardly dared to turn his head and look behind.

"Well, father, what do you want?" said a honey-dripping voice. That voice set trembling every chord in Jagat's breast.

"Just come here, you little hussy; have you forgotten your old playmate?"

Jagat felt giddy and saw Tanman through a haze. He straight forgot to which world he belonged. He forgot that he had grown up. He had expected to see a little child. But here was the pretty little face of yore aglow with all the promise of gracious maidenhood; and those merry twinkling eyes of yore flashed forth darts of love. Jagat had gone to see off at Ratnagadh station a smiling romping gazelle of a girl eight years old; and he had not even dreamt of meeting her here, his " Devi," grown now to the semblance of Rati[1] herself. He was somewhat frightened of this change in her. Will his " Devi " be the same as of old? He even wished for a moment that he had not met again his childhood's friend now grown into dazzling womanhood,—he would at least have preserved intact the first tender memories.

Jagat was dumb in his confusion. Tanman's clear complexion was suffused with a blush. Her tall, graceful form, draped in white, bent a little.

" How are you, Jagatkishor?" she asked. She was the more collected of the two.

" Quite well."

" Oh, you hypocrites! " cried Harilal, " but yesterday you were eating, playing and sleeping together, and to-day you meet as strangers! For shame! Get away from here and renew your old friendship."

Harilal had one serious fault. He had forgotten entirely that a beautiful Hindu girl, brought up with fond care, as his had been, becomes slowly but surely a terrible force. He was a great advocate of independence of women and of grown-up marriages. Consequently he insisted upon regarding Tanman as a child even at an age when she might have borne her second baby had she been brought up in strict orthodox fashion. And he allowed Tanman the same freedom from restraint as to a little child. Apparently he expected a good husband for her to drop from the sky and so had postponed all trouble about finding him. Fortunately for him the innocent purity of Tanman's heart was even greater than her beauty. On account of her upbringing and of her independent character and because her father had been her only companion till that time, she had not yet got the taint of "worldly wisdom" common to girls of her age. She studied, sang, and grew in perfect accord with her own nature—in accord with the laws of God. She had been spared the infections of child matrimony, which make our Hindu women old even before they have ceased to be girls. She was like a forest plant growing straight and natural in a fertile soil, well supplied with water, dancing to the sweet soft murmur of the breeze. She had never yet been bent, and it seemed she was never destined to be bent.

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[1] The beloved of Kama, the God of Love.

Tanman began to descend the steps as soon as she heard her father's wishes.

"I will join you as soon as I have had a change," said Jagat. He was eager to go, but he wanted a few moments to collect his scattered senses. He went to his room and changed. While thus engaged his mind was thinking of many things. The "Devi" of his childhood was now a Devi[1] indeed and he wanted to know how to behave in these circumstances. Would the old manner be proper now? Still undecided he went to the back-yard of the cottage and found out from a servant where Tanman was.

A footpath through a mango-grove connected the two cottages. Near the wicket gate between the two there was a rustic bench upon which she was sitting. Jagat went there with trembling hesitation. Tanman, a veritable goddess of beauty, rose up and remained standing with eyes downcast to welcome him. But through the curving lashes two stars were twinkling brightly. If Jagat had been more at ease he might have noticed that she looked a shade paler and her breast was heaving with suppressed emotion.

Jagat saw that he was expected to speak first. He scarcely understood how to talk with such a maiden after all these years of separation.

"Well, Miss Tanman, do you remember me?"

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[1] Goddess.

Half shyly, half in joke came the rich sweet voice of Tanman, "Of course, I remember you. But do *you* remember me? 'Devi' has become 'Tanman' with a 'Miss' prefixed! That shows what *you* are?" Tanman laughed, her voice was still like the trill of a bird, and but was now richer, more melodious than of old.

The same laugh, the same spirit of mischief;—the years of separation had vanished. Tanman had removed all difficulty with one sentence and they began exactly where they had left off years ago. Jagat smiled a little; "But you have grown a young lady,"—he began.

"And you have remained a baby!" she cried mocking him. Her eyes were flashing forth love. "I thought I would see my Kishor, but you have become instead a moralising elder brother." Jagat was convinced that she was the same Tanman—his own "Devi."

"Tanman, I was really afraid that you had forgotten me."

They sat down side by side on the seat.

"Tanman knows better than you how to keep her word."

"I know all that. You are certainly better at boasting; that much is certain."

"Boasting! Tell me how often you thought of me?" she asked putting a hand on his shoulder.

"Very often."

"No, be exact. How many times a day." Jagat had to confess that he could not say how often.

"That is just the difference between us. I thought of you at least twice a day."

"Nonsense; you surely never kept count."

"I did. Every morning upon waking and every night before going to bed I sang our song and remembered you!

"Which song? 'My love has quite forgotten me'?[1]

"Yes. You remember it?" asked Tanman with eyes brimming over with affection.

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[1] Nov. 1921, p. 262.

Jagat felt a wonderful gush of tenderness in his breast. His heart as it were was rushing forth to greet his Devi. He took her hand and pressed it—could not help pressing it. Tanman smiled.

After a few minutes Harilal arrived leaning upon the arm of a servant. He appeared weaker when he stood up.

"Well, children! Haven't you finished yet? Better finish your talk to-morrow."

Jagat stood rooted to the spot gazing at the graceful figure of his beloved comrade as she retreated through the gathering twilight. He had rapidly climbed up the steps of heaven. All other relations in this world were of no count whatever. They had fallen in his esteem. Only one dear form ruled supreme over his heart.

* * * * *

That whole night Jagat had no sleep. He was wandering about in heaven with but one angel form. Another day dawned and then even this heaven seemed insignificant. For there loomed up on his horizon the certainty of living contact with that angel, which was a thousand times more pleasant than any dream.

CHAPTER IV

Some New Discoveries

Mountains are proverbially immobile and they are regarded as the very type of changelessness. Saints and seers dwell upon their summits, wild animals have their lairs among their caves; and not one of their denizens even dream that these incarnate masses of immobility can also change in a moment. Once in an age a silent peak belches forth the fire which had lain for centuries hidden in its bosom and the whole changeless fabric vanishes in a flash. A flaming molten stream of liquid fire issues from the mountain's heart and spreads death and ruin for miles around, engulfing fair fields and smiling villages in its fiery embrace. The human being, too, at a certain age passes through a similar transformation.

Jagat prided himself upon his self-analysis. He regarded himself as guided by pure reason; but some of his friends thought him cold and selfish, and people like Ramanlal thought there was no vice in him. None could have had any idea of the volcanic fires smouldering underneath the calm exterior of this reserved and shy young man. None would have guessed the terrible outburst that was to come. The outer surface was quite calm. Last evening a few puffs of smoke had come forth but he believed them to be mere surface manifestations.

Madhavdas, Raman and Jagat were taking their tea.

Raman was sitting on one corner of the table inclined at an angle just enough to preserve his equilibrium. He was holding his cup in the newest, latest, Bombay "style."

"Well, dad, now let us bore ourselves to death."

"Why, what's wrong now?"

"What's wrong? Is this a place fit for human beings? What are we to do in this hole?"

"Do what all these others do. Eat, drink and be merry."

"Of course, any beast may do that. But, dear boy, come on, let's be off to Hajira.[1] Fine place and a grand lighthouse, what!"

"I have never seen it," cried Jagat.

"What have you not seen? Come, I will show you," cried Tanman entering. She leaned both her elbows on the back of Jagat's chair with an air of proprietorship.

"Hajira. You too will come, noise-maker?" asked Raman.

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[1] A village near Dumas.

Tanman might herself take liberties in speech, but she never forgot for a moment her natural dignity. She felt a contempt for Raman's ways and had more than once shown her displeasure at the liberties he had tried to take with her.

"Ramanlal! How does that concern you? Did I not tell you once that I do not care for your jokes. When I feel like hearing them I shall let you know": her reproof was uttered so sternly that Ramanlal felt extremely small.

This was a new phase for Jagat to observe. His respect for her increased to see her possessed of a sense of dignity and self-respect. She decided herself with whom and how far she should be familiar.

"Mr. Jagat, are you going?" she gravely inquired.

"Yes, I should like to go. Won't you come?"

"Oh! then I too will go."

"Very well, we shall start at noon. I'll arrange for a boat," said Ramanlal eager to escape. Mr. Madhavdas in thick woolen socks and canvas slippers, also walked out to superintend the work in his garden. He had earned a lot of money by his own exertions and so he was very careful of all his possessions.

"Tanman," Jagat could not help asking, "is this high and mighty attitude for me also?"

Tanman bit her lips in mock anger; she looked glorious in her anger. Then she laughed outright. "Kishor dear, for you? Are you mad?" she cried and lunging out at his shoulder with her fist she ran away. This was the sweetest blow Jagat had felt. Whenever she called him Kishor she added the "dear."

"You rogue, come along" he cried going after her.

* * * * *

They started. The heat of the summer's noonday was pleasantly tempered by the cool river breezes, and it gave greater zest to their minds. Jagat and Tanman sat side by side chatting and laughing pleasantly. She even put up with a couple of Raman's jokes during this pleasant afternoon. At Hajira they ran and romped about in the charming wilderness. Such places must have been created for human beings to hide their weary heads in the lap of mother Nature. For a long while Jagat and Tanman walked side by side communing in perfect silence.

At last they began to ascend the lighthouse. First was a sailor with Mani on his shoulders, next followed Mr. Ramanlal puffing a cigar and Tanman and Jagat brought up the rear. There was a narrow opening half way up looking out upon the sea. Tanman was running gaily up the steps and as luck would have it as soon as she came to the opening a bat which had made its home in a dark corner got disturbed and squawking loudly it rushed blindly straight into her face. Tanman could scarce understand what it was and half fainted with fear.

"Oh, Kishor!" she screamed piteously. Jagat who had been following somewhat slowly was just at the bottom of that flight of stairs. Hearing her scream he rushed up with a bound. Tanman was pale as ashes and was trembling from head to foot. Her fright had deprived her even of words and voice.

"What is it, my dear?" asked Jagat, but even before he had asked the question, she was clinging tight to his arm. They looked through the narrow window and discovered the thing that had caused her fright.

"Oh, it's a bat!"

"Let it be. And just be calm. Look at your face, it is pale as death!"

"I had such a shock, Kishor; it seemed as if my heart had stopped beating."

"I will put it right"—these words somehow escaped Jagat; then he felt the strange meaning behind them. He felt as if he had sinned and he lifted his eyes, half afraid, up to Tanman's face. Their eyes met; and the springtide of love rushed in. Tanman's eyes were speaking to him things of primordial Nature, the unexpressed message of the woman. Jagat's eyes and his heart read the message and accepted it.

A few minutes later they had caught up Raman. Tanman's hand was upon Jagat's shoulder, for she needed help to climb.

(*To be continued*)

KANAIYALAL M. MUNSHI

GOD HEARD A SONG [1]

God heard a song; and leaning, smiled,
And granted deathless youth
To Poetry, the singing child
Of Beauty and of Truth.

GRACE ALLEN

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[1] The *Forum*, July, 1922.

GLEANINGS FROM AN OLD BENGALI PERIODICAL

Of all the periodical papers, which in the second quarter of the nineteenth century laid the foundations of modern Bengali journalism, the *Samācār-candrikā* is one of the earliest, and stands foremost as having been the organ of the orthodox Hindu society of the time, just as the *Samācār-darpaṇ* represented the views of the missionaries at Serampore and the two papers, the *Brahmanical Magazine* and the *Sambād-kaumudī*, published about the same time, voiced the opinions of Rājā Rāmmohan Rāy and his party. The old files of these papers are very scarce to-day. Sometime ago I had occasion of giving an account of *Samācar darpaṇ*; but so far as I know, no authentic account of the *Candrikā* has yet been published. I came across a complete file of the *Samācār-candrikā* for the Bengali year 1237 (April, 1830 to March, 1831) in the Bengali collection of the British Museum. Hoping that an account of it will prove interesting to students of Bengali literature, I propose to give in the following pages a brief resumé of certain informations, which I have been able to gather in this file and which will throw some light on some unsettled points in the history of early Bengali journalism.

The year 1830 is not the year of inception of this periodical; but there seems to exist a considerable difference of opinion as to the exact date of its first publication. The dates usually assigned are:

(1) 1820-21.[1]
(2) 1821.[2]
(3) 1822.[3]
(4) 1824.[4]

It must be noted that all are agreed that the paper was first published and edited by Bhabānīcaraṇ Bandyopādhyāy, who, we are told, at first assisted Rājā Rāmmohan Rāy in the editing of the *Sambād-kaumudī*, but left that paper owing to a difference of opinion with the Rājā on the question of the abolition of the *satī* and started the *Candrikā* on his own account, chiefly to oppose the Rājā in his agitation on this question. If this is true, the *Candrikā* must have been later than the *Kaumudī*; and in the opinion of one writer,[1] Bhabānīcaraṇ left all connexion with the *Kaumudī* after the fourth year of its publication. Unfortunately writers are not agreed on the date of the first issue of the *Kaumudi* itself. Long, in his *Catalogue* and his *Return* (1855), holds that the *Kaumudī* was started in the year 1819. This is supported in the essay on Bengali journals in the *Calcutta Christian Observer* (February, 1840) and accepted by most writers, *e.g.*, Rāmgati Nyāyaratna, - Kailās chandra Ghosh and Dineschandra Sen. But Long himself is not consistent, and in his subsequent essay on Bengali literature in the *Calcutta Review*, 1850, he pushes this date forward to 1823. Mahendranāth Bidyānidhi, however, maintains that all these views are wrong, and that the *Kaumudī* really started in 1818, so that the date of the *Candrikā* would be 1822. Again, in the edition of Rāmmohan Rāy's works, published by Jogendrachandra Ghosh (Vol. i, introd., p. xix), the date given is 1822; while in an essay on the *satī*, published in the *Janmabhūmi* (Fālgun, 1301), we find the date 1821. On the other hand, from the detailed description of the contents of the first two issues of the *Kaumudī*, given by Miss Collet, it seems probable that she might have seen these issues herself, or written the account from some reliable evidence. According to her, the *Kaumudī* was issued on the 4th December, 1821; and the opinion is expressed that the *Samācār-candrikā* was also 'started about the same time.' Fortunately in the very first number of our file we have an incidental indication, which apparently confirms this last view, or at least makes it probable that the *Candrikā* started as a weekly (subsequently becoming a bi-weekly in Śaka 1751=A. D. 1829) in the Śaka era 1743, which corresponds to A. D. 1821-2. The conclusion is probable therefore that the alleged difference between the Rājā and his assistant Bhabānīcaraṇ must have occurred in the very year in which the *Kaumudī* was started; and Bhabānī left the Rājā's camp and issued his *Candrikā* almost immediately afterwards, either in the same year or in the beginning of the year following. This is from our first number, No. 476, dated Saturday, April 12, 1830, Baiśākh 1, 1237, p. 11, col. 1:

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[1] *Sāhitya Pariṣat Patrikā*, 1304, p. 112 footnote.

[2] *Calcutta Review*, 1850, p. 157; Miss Collet, *Life and Letters of Raja Rammohun Roy*, 1900, p. 63, footnote.

[3] Long, *Catalogue;* also *Return*, 1855; Kailāschandra Ghosh, *Bāṅgālāsāhitya;* *Janmabhūmi*, 1303-4; Rāmgati Nyāyaratna, *Baṅgabhāṣā O Sāhitya*, 1317, p. 373; Dineshchandra Sen, *Hist. of Bengali Lang. and Lit.*, p. 909; Nagendranāth Chatterji, *Rāmmohan Rāyer Jībancarit*, p. 719, footnote [the reference to 'the Samācār-candrikā of the Christians' in the last-named work (p. 166) is a mistake for *Samācar-darpaṇ*, see Miss Collet, *op. cit.*, p. 47].

[4] *Bengal Academy of Lit.*, 1894, Vol. i, no. 6, p. 2.

এই চন্দ্রিকা পত্র ১৭৪৩ শকে সাপ্তাহিক অর্থাৎ প্রতি সোমবারে প্রকাশ হইত ১৭১৫ শকের বৈশাখাবধি সপ্তাহে দুইবার অর্থাৎ সোমবারে ও বৃহস্পতিবারে প্রকাশমান হইতেছে

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[1] Mahendranāth Bidyānidhi in the article in *Janmabhūmi* cited in footnote 3.

এ পর্য্যন্ত চন্দ্রিকাপত্রের কোন হানি অর্থাৎ কোন দিন অপ্রকাশ হয় নাই সর্ব্বদাই উজ্জ্বল আছে ইহাতেই বিজ্ঞ গ্রাহক সকলে নির্ম্মল চন্দ্রিকার রসাস্বাদনে আপ্যায়িত হওয়াতে চন্দ্রিকার উত্তরোত্তর উন্নতি হইতেছে।

The file in the British Museum consists of Nos. 476 to 580, covering completely the Bengali year 1237. The pagination is continuous, from 1 to 848 pages. Its size is quarto, like most journals of the time; and in each issue the average number of pages is 12, each page having two columns. The type is large and neat. Every issue bore this motto on its head in Sanskrit:

যদা সমাচারজুষাং ফলার্পিকা
পদার্থচেষ্টাপরমার্থদায়িকা।
বিজৃম্ভতে সর্ব্বমনোনুরঞ্জিকা
শ্রিয়া ভবানীচরণস্য চন্দ্রিকা॥

At the end appeared this superscription:

কলিকাতার কলুটোলা ২৬ নং বাটীতে চন্দ্রিকাযন্ত্রে মুদ্রিত হইয়া সোমবার প্রাতে ও বৃহস্পতিবার সন্ধ্যাকালে প্রকাশ হয় মূল্য প্রতিমাসে ১ টাকা

so that in the year under review, it was a bi-weekly, published every Monday morning and Thursday evening.

A somewhat detailed account of the contents of the first number will not be out of place here. The first ten pages are entirely taken up by advertisements, leaving barely two pages to the reading matter or the editorials. The advertisements in their consecutive order are:

(1) Revenue Board Notices (বিজ্ঞাপন), pp. 1-2.
(2) Last Sheriff Sale (শেষ সেরিফ সেল), pp. 2-8.
(3) Insolvency Court of Calcutta (মোকাম কলিকাতার নাতওয়ান খাতকের পরিত্রাণের আদালত), p. 8, cols. i-ii.
(4) An appeal for contribution to the Dharma-sabhā, p. 8, col. ii, and p. 9, col. i. (ধর্ম্ম সভায় ধন দান), which, as the notice says was established on Māgh 5 of the present era (*i. e.*, 1236 ?) and of which Bhabānīcaraṇ was the secretary. It may be noted here that since the establishment of this Religious Society, the *Candrikā* became its organ; and advertisements relating thereto, proceedings of its meetings and its workings, appeal for its funds and long lists of the names of the contributors, etc., appeared in this paper periodically. Owing to its limited space, the names of

all the contributors could not be conveniently published in due time; and the complaints of impatient contributors, anxious about the safety of their money, elicited a reassurance from the editor in one of the issues and an indignant repudiation of all suggestions of misappropriation! The ordinary expenses of the Society or of its organ the *Candrikā* do not appear to have been defrayed by these contributions, which primarily constituted the fund towards the projected representation of the Society's views about the *satī* in England. The chief object of this Society was, as already indicated, generally to uphold the traditions of the orthodox Hindu religion, and particularly to draw up an appeal, signed by all Hindus, to the English people for repealing the Act against the *satī*. All news relating to this reactionary agitation appeared in the *Candrikā*; and isolated cases of *satī*, which occurred here and there even at that time, were reported with approval. On this topic the *Candrikā* very often entered into keen controversy with the *Darpaṇ* and the *Kaumudī*, traces of which are preserved in our file; but as this topic of ephemeral polemic has lost all interest to-day it is not necessary to cite or refer to it in this connexion. It is interesting to note, however, from our file that this Society in 1830 elected an English Barrister as the representative of itself and of the Hindu Society, and made all arrangements to send him to England with its appeal; but unfortunately his ship having been wrecked at the Bay of Bengal, he had to return; and the first venture, so far, proved unsuccessful. In the meantime Rājā Rāmmohan Rāy left for England, one of his objects being to defeat this reactionary fury; and this, as it appears from remarks in the *Candrikā*, caused not a little anxious speculation in the hearts of these upholders of the orthodox faith. The subsequent history of this agitation is too well known to require a recapitulation here. The Dharma-sabhā appears to have been started under the distinguished patronage of Rājā Rādhākānta Deb, and counted among its members, as we gather from the reports of its proceedings, men like Tāriṇīcaraṇ Mitra, Rāmkamal Sen, Umānanda Ṭhākur, etc., in whose houses most of its sittings were held and deliberations matured.

(5) The Treasurer of the Dharma-sabhā (ধর্ম্মসভার ধন রক্ষক), advertising the resignation of Baiṣṇabdās Mallik and appointment of Pramathanāth Deb in his place, p. 9, col. i.

(6) An advertisement (entitled সমাচারচন্দ্রিকা) inviting commercial advertisements in the *Candrikā* as the most suitable medium, p. 9, col. ii.

(7) An advertisement headed কেতাব শাহনামা about the publication of an edition of that work, p. 9, col. ii.

(8) Sale of Books (পুস্তক বিক্রয়) published by the *Candrikā* Press. It is interesting to note, in the list of books given here, the mention of *Kalikātā Kamalālaya* written by Bhabānīcaraṇ himself (কলিকাতা কমলালয় প্রশ্ন উত্তর দ্বারা কলিকাতার রীতিবর্ণন মূল্য ২ টাকা),[1] p. 10, cols. i-ii.

After this series of notices and advertisements begins the short editorial, which we have already quoted, referring to the circulation and popularity of the *Candrikā* (p. 11, col, i). Then follows a notice of public appointments (রাজ কর্ম্মের নিয়োগ) and a piece of news (বোম্বের সহমরণ বিষয়ক), given with apparent approval, that the Governor of Bombay had issued a circular allowing the *satī*, in those cases where it was approved by the pañcāyet, p. 11, cols. i-ii. The number concludes with a list of donations and subscriptions to the Dharma-sabhā with the names of the donors and subscribers, pp. 11-12.

This, in brief, is the general feature of this periodical and the nature of its contents. This general arrangement is kept up practically in all the numbers; and it would be unnecessary for our purpose to give here a list of the contents of all the subsequent numbers. We shall content ourselves here with briefly noticing and culling items which may prove interesting or important to students of the literary or social history of the time.

In No. 481, dated April 29, 1830, we have a reference to a Bengali periodical called *Baṅga-dūt* (বঙ্গদূত). Later on we have references to specific numbers of the same periodical. Thus in *Candrikā* No. 491 (dated June 3) is cited *Baṅga-dūt* No. 9; while in Nos. 495 (dated June 17), 497(dated June 24), 500 (dated July 5), 514 (dated September 6), *Baṅga-dūt* Nos. 11, 12, 14 and 20 are respectively cited. On the other hand, in *Candrikā* No. 496 (dated June 21) we have a reference to the *Baṅgadūt* of the date, 32 Jyaiṣṭha. From all this the conclusion is not unlikely that the *Baṅgadūt* was a weekly paper; and the dates of the different issues referred to above may be provisionally calculated as follows :

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[1] See S. K. De, *Bengali Literature in the 19th Century*, p. 294.

Baṅgadūt	No.	9—May 30	(Jyaiṣṭha 18)
"	"	10—June 6	(Jyaiṣṭha 25)
"	"	11—June 13	(Jyaiṣṭha 32).
"	"	12—June 20	(Āṣāḍh 7)
"	"	13—June 27	(Āṣāḍh 14)
"	"	14—July 4	(Āṣāḍh 21)

And computing backwards we get April 4, 1830 as the probable date of origin of this periodical. At any rate it is clear that this paper must have started at the beginning of the year 1830; and this testimony entirely negatives the dates, 1825 (followed by Kailāschandra Ghosh, Rāmgati Nyāyaratna, Mahendranāth Bidyānidhi and Dineshchandra Sen) and May 10, 1829, [1] assigned by Long. Kedārnāth Majumdār in his *Bāṅgālā Sāmayik Sāhitya* (p. 96) expressed the opinion that this periodical was written both in Bengali and Persian; but the references in our file do not support this suggestion.

In *Candrikā* No. 582 (dated May 3, 1830) we have a reference to the bilingual stage of the *Samācār-darpaṇ*, *viz.*, that it was written both in English and Bengali at that time. We have tried to show on another occassion [2] from the files of the *Darpaṇ* itself that from 1831 to 1837 the *Darpaṇ* was written both in English and Bengali; the present evidence would indicate that the *Darpaṇ* was bilingual even before that date in 1830. There is a quotation in this number of the *Candrikā* from the *Darpaṇ*, which says that the Europeans get all informations of the Dharma-sabhā through the translations given in the *Darpaṇ* (ইহা ইউরোপীয় লোকেরা কেবল দর্পণের অনুবাদের দ্বারা অবগত হইতেছেন, p. 58, col. i).

In *Candrikā* No. 491 (dated June 3 or Jyaiṣṭha 22), we have a reference to the periodical *Sambād-timir-nāśak*, (সম্বাদতিমিরনাশক) No. 347, dated Jyaiṣṭha 16 (=May 16). Assuming that it was a weekly and that its publication was unbroken throughout, a rough calculation would give us 1823 as the date of its first publication, which is the usual date assigned to it.

In *Candrikā* No. 497 (dated June 24, 1830) we have the announcement of the first publication of a weekly journal called *Śāstra-prakāś* (শাস্ত্রপ্রকাশ)

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[1] *Calcutta Review*, 1850.

[2] *Sāhitya Pariṣat Patrikā*, Vol. 24, 1324, pp. 168-9 ; S. K. De, *Bengali Literature in the XIXth Century*, 1919, p. 242.

edited and published in Calcutta by Lakṣmīnārāyaṇ Bhaṭṭācāryya Nyāyālaṅkār and apparently devoted to the discussion of religious topics. Price Re. 1 monthly, and published every Wednesday (প্রতি বুধবারে যন্ত্রিত হইয়া এক এক পত্র দিবেন).

In *Candrikā* No. 499 (dated July 1), we have a short account of a meeting of the School Book Society, the history of which is closely related to the history of English education in Bengal in the early parts of the 19th century. It appears that the Society was about this time in a bad way with regard to its finances; for Mr. Justice Ryan is reported to have expressed, in the course of the meeting, his regret over the loss of interest in the Society's work on the part of the native population. In 1817 there were 80 subscribers, in 1829 the number fell to 10. The Society by this time had nearly accomplished its useful object; and as its work was being taken up in other quarters, the necessity of its existence was no longer felt.

The Oriental Seminary started by Gourmohan Āḍhya in Garāṇhāṭā appears, from an advertisement inserted by the founder himself (No. 505, dated July 22), to have been established in 1828; and from *Candrikā* No. 518 (dated September 6) we learn that the old Hindu College was till then situated in Chitpore Road.

The *Candrikā* No. 526 (dated October 4) records the death of the famous Paṇḍit Jayanārāyaṇ Tarkapañcānan, which occurred on Āśvin 15,1237 (=September 31, 1830), at the age of 55.

The *Candrikā* No. 540 (dated 22nd November=Monday, Agrahāyaṇ 8, 1237) gives the interesting news that Rājā Rāmmohan Rāy, who had been making arrangements for some time to leave for England and over whose objects in this venture there had been a great deal of speculation and rumours reported in the *Candrikā*, had sailed in S. S. *Albion* "last Friday" (=November. 19, 1830):

গত শুক্রবার শ্রীযুক্ত রাম মোহন রায় স্বীয় পূত্র ও চারিজন পরিচারক সমভিব্যহৃত হইয়া আল্‌বিয়ন্ নামক জাহাজে আরোহণ পূর্ব্বক বিলাতে গমন করিয়াছেন।

There are occasional attacks on the reckless and incontinent lives led by "English-educated" Bengali youths of this period. In No. 534 (dated November 1) we have the letter of a sorrowing father who comments on the manners or ill-manners of his son who was educated in the Hindu College. This reactionary paper seldom missed an opportunity of denouncing English education, which was then gradually gaining ground in the country but which, in the opinion of the narrow orthodoxy of the me, sapped the very foundations of the ancient Hindu faith and was responsible for all the pernicious habits of the young bloods of the time. It is needless to remark that in tone and policy this periodical represented the extreme and somewhat one-sided views of the so-called orthodox party, which regarded everything new with jealous suspicion, just as the. so-called reforming Young Bengal regarded everything old and time-honoured to be despicable. The paper not only supported the *sati*, which was one of its avowed objects, and objected to the teaching of English to the students of the Calcutta Sanskrit College, but it even vehemently denounced the spread of primary education among the lower classes on the ground that the latter would then claim undue equality with the higher castes! It is true that the conduct of some of the fresh products of the Hindu College was not always above reproach and deserved the biting satire of works like *Kalikātā Kamalālaya* and *Nabu-bābu-vilās* [1] (which, by the way, is referred to in *Candrikā* No. 559, dated January 27, 1831, কএক জন বাঁকা বাবু পিতৃবিয়োগান্তর নানা কুকর্ম্ম করিয়াছেন এবং নববাবুবিলাসগ্রন্থে তাহা ব্যক্ত আছে); but one reads to-day with amusement the somewhat naive and over-zealous remarks of these defenders of the ancient society. There was very little discussion of politics or political news, although articles or correspondences used to appear from time to time on topics like burden of excessive taxation, expensiveness of litigation, mal-administration of the *dārogās* and *āmins* in the muffassil and so forth. Its main pre-occupation was social, or religious, if you will; and its editor came to be regarded as an oracle of faith to such a degree that correspondents used to refer to him all questions of doctrine or ceremony.

We shall conclude with culling a few items regarding the publications of three well-known Bengali periodicals, the *Sambād-prabhākar*, the *Sambād-sudhākar* and the *Samācār-sabhā-rājendra*, all of which started about this time. The date of the first issue of the *Sambād-prabhākar* is usually given as 1830 (Long, Kailās Chandra Ghosh, Rāmgati Nyāyaratna and Dinesh Chandra Sen); but in *Candrikā* No. 561, dated Feb. 3, 1831 (Māgh 22, 1237), we learn that it was first published on Friday, January 28, 1331 or Māgh 16,

> পাঠকবর্গের স্মরণে থাকিবেক সম্বাদপ্রভাকর নামক সমাচার পত্র এতন্নগরে প্রকাশ পাইবার জল্পনা হইয়াছিল সংপ্রতি গত ১৬ই মাঘ শুক্রবার তাহার প্রথম সংখ্যা প্রচার হইয়াছে।

And in the next issue of the *Candrikā* the editor gives his editorial blessings to the new venture; while in No. 573 (dated March 17, 1831;

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[1] Dineshchandra Sen, *op. cit.*, pp. 924 ff.; S. K. De, *op. cit.*, p. 295.

Caitra 5, 1237), the editor congratulates the *Prabhākar* in these terms :

প্রভাকর অত্যল্প দিবস প্রকাশ হইয়াছে বটে কিন্তু ইহাতেই এতন্নগরের যাবতীয় ভদ্রলোক তৎপত্রের আদর করিয়াছেন এবং নানা দিগ্‌দেশ হইতে ঐ পত্রের গ্রাহক হইয়া অনেক লোক পত্র লিখিতেছেন।

The *Sambād-sudhākar* was started nearly a month later on Wednesday, Fālgun 13, 1237 (=Feb. 23, 1831), as we learn from *Candrikā* No. 568, dated Feb. 23 or Fālgun 18 :

আমরা আহ্লাদপূর্ব্বক পাঠকবর্গকে জ্ঞাত করাইতেছি গত ১৩ ফাল্গুন বুধবার প্রাতে সম্বাদ সুধাকর নামক সমাচার পত্র এতন্নগরের যোড়াবাগান ষ্ট্রীটে শ্রীযুত দেবীচরণ প্রামাণিকের আলয়ে মুদ্রিত হইয়া প্রকাশ হইতেছে।

The date, 1830, usually assigned (Long, Mahendranāth Bidyānidhi, Dinesh Chandra Sen, etc.) is therefore incorrect. It was written only in Bengali, and not in both English and Bengali. From *Candrikā* No. 573 (dated March 17, 1831) we also learn that its editor or publisher was one Premchānd Ray of Kāñcaḍāpāḍā:

সুধাকর পত্রের প্রকাশক কাঁচড়াপাড়া নিবাসী বৈদ্যকুলোদ্ভব শ্রীযুত প্রেমচাঁদ রায়।

The publication of the *Sambād-sabhā-rājendra* is announced in *Candrikā* No. 571 (dated Fālgun 28, 1237 = March 10, 1831). It was started on March 7, 1831 or Fālgun 25, 1237, Monday : [1]

সমাচার সভা রাজেন্দ্র নামক বাঙ্গালা ও পারস্য ভাষার এক সমাচার পত্র সৃজন হইবার কল্প ছিল তাহা গত ২৫ ফাগুঁণ সোমবার প্রকাশ হইয়াছে প্রথম সংখ্যা দৃষ্টি করিয়াছি তাহাতে তৎপ্রকাশকের প্রতিজ্ঞা বা অভিপ্রায় কিছুই ব্যক্ত হয় নাই কেবল কএকটী সংবাদ এবং তাহারি অবিকল অনুবাদ পারস্য ভাষায় হইয়া চারিতা কাগজ মুদ্রিত হইয়াছে বোধ হয় আগামিতে তৎপ্রকাশক আপন অভিপ্রায় ব্যক্ত করিবেন।

From the editorial remarks we also learn that this was the *first* Persian-Bengali periodical. It is sometimes stated that the *Samācār-darpaṇ* was for a time written in both Persian and Bengali. It is clear now that up to 1831 Persian apparently never found a place in it; and it is improbable that in the later course of its history, it turned to Persian as an alternative medium of expression.[2] The name of the editor of the *Samācār-sabhā-*

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[1] The date 1821 given by Dineshchandra Sen (*op. cit*, p. 910) is incorrect.

[2] S. K. De, *op. cit*, p. 242, footnote and ff.

rājendra is not given (Mahendranāth Bidyānidhi gives the name Mauluvi Ali Mollā); but we are told that he was a Muhammadan (*Candrikā* No. 573, dated March 17, 1831).

From the above discussion we may attempt to tabulate our provisional knowledge of the chronology of Bengali journalism up to March 1831. Leaving aside the *Bengal Gazette* of Gaṅgādhar or Gaṅgākiśor Bhaṭṭācārya, the files of which have never been recovered and the very existence of which have been doubted, we get the following names and dates :

1.	Samācār-darpaṇ	May 23, 1818.
2.	Brāhmaṇ-sebadhi or Brahmanical Magazine	Sept. 1821 (?)
3.	Sambād-kaumudī	Dec. 4, 1821 (?)
4.	Samācār-candrikā	1821-2.
5.	Sambād timir-nāśak	1823 (?)
6.	Baṅga-dūt	April 4, (?) 1830.
7.	Śāstra-prakāś	June 1830.
8.	Sambād-prabhākar	January 28, 1831.
9.	Sambād-sudhākar	February 23, 1831.
10.	Samācār-sabhā-rajendra	March 7, 1831.

The subsequent history of the *Samācār-candrikā* does not concern us here. It appears that after Bhabānīcaraṇ, the paper was conducted by Bhagabatīcaraṇ Chaṭṭopādhyāy of Pānihāṭi and his son Bāmācaraṇ. Long says (*Return*, 1855) that it was alive till 1851 ; and in the list of periodicals given by Padmanāth Bhaṭṭācārya (*Sāhitya Pariṣat Patrikā*, 1324, p. 75) from the *Aruṇodaya* of 1851, the name of *Candrikā* occurs. We, however, have seen a reference to it at a much later date in the daily *Prabhākar* of Baiśākh 23, 1272 (=1865), a file of which is in the British Museum collection. The *Candrikā* at some stage of its career became a daily paper and was subsequently amalgamated with the *Dainik.*[1]

Calcutta }
June, 3, 1922. }

Susilkumar De

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[1] This article was originally written in Bengali for the Bengali Journal, *Bhāratī*. I thank the editor of the *Bhāratī* for his courtesy in allowing me to put its substance in this English form. The mode of transliteration is the same as in my work on Bengali Literature.

From Far and Near

East Midland University.

At Nottingham last week Lord Haldane laid the foundation stone of the new East Midland University on a site given by Sir Jesse Boot, who has added to his great benefactions to the city by giving £150,000 towards the building fund and endowing a Chair of Chemistry. In a letter regretting his inability to be present, Sir Jesse expressed a desire to see it possible for every poor student of Nottingham and the Midlands to climb every rung of the educational ladder. Lord Haldane, in the course of an address, made the important announcement that an anonymous donor had sent him a cheque for £100,000 towards the endowment of the University. The writer declared that in these days one saw in ever-increasing degree how indissolubly the national welfare and progress were linked with the establishment and spread of a scientific educational system, which should add to the training and skill of all classes of the community. He appealed to our large manufacturers and employers of labour to recognise that truly scientific knowledge could never be an enemy. The real source of trouble was ignorance and doubt. He felt there were many wealthy men who did not give to movements such as that the help they could give, and one reason for with-holding his name was that he did not wish to appear to be preaching at them, or even to be aiming a shaft at random at anyone. Speaking subsequently, Lord Haldane observed that an almost passionate interest for education had developed among the people, and probably the greatest source of unrest experienced to-day was due to the working classes finding themselves to an enormous extent cut off from the chances of higher learning. They would never be satisfied until the highest opportunities were as much available for the workmen's sons and daughters as for those of rich men.—*Education.*

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Northern Universities Joint Matriculation Board.

We have received a copy of the Regulations of the Matriculation Regulations for the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham Joint Matriculation Board for 1923. We note that there is a new Scheme for the Examination, which gives much greater freedom in the choice of subjects to the candidate. No one subject is compulsory, and an important feature is the dropping of Mathematics as a compulsory subject and the reduction of the number of subjects required from six to five. Formerly a candidate had to pass in (1) English, (2) History, (3) Mathematics, (4), (5), and (6), three other subjects chosen from the schedule, one of which must be an approved Foreign Language. The numbers of candidates taking the Board's Examinations shew a further increase this year. The entries are as follows :—School Certificate and Matriculation Examination, 10,257 candidates presented from 806 different schools, and Higher School Certificate Examination, 2,081 candidates drawn from 280 different schools. These numbers include a small percentage who are entered not for the full certificate, but for Supplementary and other Certificates.—*Education.*

* * *

Professor Mawer on Grammar.

Professor Allen Mawer's paper on Grammar, which he read to the English Association, has attracted some attention. Professor Mawer said that the analytic structure of many modern languages gave possibilities of expressing thoughts and ideas not found in languages of more rigid structure. No European language was unaffected. Ideas of grammar were being revolutionised, and the task had to be faced of reconstructing our grammar until new terms and definitions had been established which really fitted the facts of the case, they must, as far as possible, hold their hands with regard to the teaching of grammar, and in so far as they did teach it confine themselves to the simplest and most elementary phases of it. Above all, let them not make confusion worse confounded by trying to force the grammar of a modern language into the framework of other languages. English was becoming a world language; and they must not tie it down to a system of grammar which did not recognise to the full the fundamental facts of its structure.—*Education.*

Education Expenditure.

Mr. Inskip asked the President of the Board of Education whether he can state how the total expenditure of local education authorities, as estimated by them for 1922-23 in respect of elementary and higher education, respectively, compares with their total expenditure as shown in their revised estimates for 1921-22, and as assumed for the purposes of the Board's estimates for 1922-23 ?

Mr. Fisher : The figures are as follow. They are based on a first return and the estimates in the cases of about 40 authorities for elementary education and 24 authorities for higher education have not yet been formally adopted by the councils concerned :—

Estimated Expenditure of Local Education Authorities, 1922-23.

	Local Education Authorities Revised Estimates for 1921-22. (1)	Assumed by Board of Education for 1922-23. (2)	Local Education Authorities Preliminary Estimates 1922-23. (3)
Elementary Education.	£	£	£
Teachers' salaries ...	42,567,584	43,800,000	43,591,135
Loan Charges ...	3,104,109	3,250,000	3,111,832
Administration and other expenditure [1] ...	13,213,303	12,000,000	11,785,106
Special services [2] ...	4,154,073	3,400,000	3,336,381[3]
Total, Elementary	63,039,069	62,450,000	61,824,454

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[1] Other expenditure (Elementary Education) includes rents, rates, taxes insurance, fuel, light, cleaning, caretakers' wages, stationery, repairs to buildings and furniture, capital outlay when charged to revenue, and miscellaneous charges.

[2] Special services (Elementary Education) include school medical services, provision of meals, special schools for defective children, organisation of physical training, evening play centres and nursery schools.

[3] This figure includes a sum considerably in excess of the limit of £300,000 for provision of meals stated in paragraph 4 of Command Paper 1638. Full details are not yet available.

	Local Education Authorities Revised Estimates for 1921-22. (1)	Assumed by Board of Education for 1922-32. (2)	Local Education Authorities Preliminary Estimates 1922-23. (3)
Higher Education.	£	£	£
Training of teachers ...	614,805	[1]	458,639
Secondary schools ...	5,720,129	[1]	5,408,876
Technical, etc. ...	4,069,520	[1]	3,736,526
Loan charges ...	689,623	[1]	738,928
Higher Education.			
Administration ...	673,884	[1]	670,283
Aid to students ...	1,345,764	[1]	1,638,781
Other expenditure ...	264,332	[1]	413,004
Total, Higher	13,378,057	13,000,000	13,115,037
Total, Elementary and Higher	76,417,126	75,450,000	74,939,491

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Sir J. D. Rees asked the President of the Board of Education whether he will give the total estimated expenditure from rates and taxes upon education in England and Wales for the current financial year, and explain the difference, if any, between such estimate and the estimate of £103,000,000, arrived at by the Geddes Committee; and, if the latter estimate is found to be erroneous, whether he will explain in respect of what items and in what behalf such errors are found or upon what erroneous premisses or principles such estimate is based?

Mr. Fisher: The total estimated expenditure from rates and taxes for the year 1922-23 in respect of services in England and Wales which fall within the purview of the Board of Education was given by the Geddes Committee as £89,850,000—to which were added further sums of £12,910,000 for expenditure from Scottish rates and taxes, and £1,120,000 for Treasury grants to Universities and colleges, bringing the total up to £103,880,000. The figure of £89,850,000, which was based upon conjectural forecasts, was made up as follows :—

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[1] These items are included in the total of £13,000,000 (a separate allocation has not been made).

Board of Education Vote.	Other Grants to L.E.As.	Total Expenditure from Taxes.	Total Expenditure falling on Rates.	Total Net Expenditure from Taxes and Rates.
£	£	£	£	£
50,600,000	950,000	51,550,000	38,3000,000	89,850,000

The corresponding figures which form the basis of the Board's Estimates now before Parliament, and which are based on the latest returns from local education authorities in England and Wales, are as follows :—

Board of Education Vote.	Other Grants to L.E.As.	Total Expenditure from Taxes.	Total Expenditure falling on Rates.	Total Net Expenditure from Taxes and Rates.
£	£	£	£	£
44,9000,000	951,459	45,851,459	33,821,848	79,673,301

* * * * *

Education Expenditure, 1922-23.

Sir J. D. Rees asked the President of the Board of Education whether his attention has been called to the difference between his estimate of £75,450,000 for cost to rates and taxes of education for 1922-23 and the estimate of the Geddes Report of £103,000,000 for the same year, the addition to his figures of £13,000,000 for Scotland, leaving a difference of £15,000,000, for which no explanation has so far been offered ; and whether he has any statement to make ?

Mr. Fisher : The estimate of £75,450,000 is the assumed total of the net expenditure of local education authorities in England and Wales, which will be met partly from rates and partly from taxes. The composition of this total and the assumptions on which it is based are explained on page 8 of the Memorandum on the Board of Education Estimates, 1922-23. The estimate of £103,000,000 is apparently an estimate, based on provisional forecasts, of the total educational expenditure from taxes and rates, whether included in the accounts of local education authorities or not.—*Education.*

Lord Haldane on an Educated Democracy.

Lord Haldane is continuing his campaign for a really educated democracy. The mind of the democracy, he said in a recent speech, was weighed down by the fetters of ignorance, which did not permit freedom in self-expansion, and the result was that the great majority found itself in that position of class consciousness and separation from the more fortunate minority, resulting in unrest and disturbance. "Do you think," Lord Haldane added, "if we had a really educated democracy, a keen democracy permeated by ideas, we should have these social problems which agitate us to-day?"—*Education.*

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Oriental Languages : Phonetic Research.

Mr. E. Evans asked the President of the Board of Education whether he can give any information as to the research which the University of London is conducting into the phonetic analysis of the languages of the British Empire; what results have so far been achieved; and whether he can take any steps to facilitate the extension of this branch of study?

Mr. Young: A Department of Phonetics is maintained at University College, London University, and the details of the courses provided and the facilities for research work are set out in the University Calendar for 1921-22. Special research courses are provided in Urdu, Bengali, Singhalese, Cantonese, Arabic, Sechuana, and a number of other Asiatic and African languages of the British Empire. The investigations in some cases have revealed new and important points of grammar and meaning, and some of the results have been published by the London University Press and the Manchester University Press. An annual grant of £2,000 is made from the Universities and Colleges vote, specially earmarked in aid of this Department, in addition to the block grant to the college. The School of Oriental Languages which is another grant-aided school of London University also offers a variety of facilities for phonetic research in Oriential languages, and information as to these is given in the published report and prospectus of the school.—*Education.*

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The Essentials of a Good Education.

The annual Conference of the Association of Teachers in Technical Institutions was held in London during Whitsun. Mr. J. Paley Yorke in the course of his Presidential Address said :

It does not appear to be recognised sufficiently that the sum total of human knowledge is so enormous that no one man can have more than a smattering of most of it. It is almost essential and inevitable that specialisation must be undertaken. Every different trade, profession or occupation represents a form of specialisation, and within any one profession specialisation is essential. It was not always so ; but the sum total of human knowledge was not as great as it is now and was not being added to at the rate at which addition takes place to-day. It must be recognised that as a body the human race must be smatterers and that each individual must be a smatterer in most things and something of a specialist in one. Were it demanded that each one of us should attain in all things a standard of proficiency represented even by some such standard as the London Matriculation or the School Leaving Examinations, we should never be able to leave school and nobody would ever pass beyond that standard. That is clearly an impossible position. I would not urge that every child should start to specialise from his cradle, but I do urge that the time has come when very careful consideration should be given to the question, "What are the essentials for a good general education ?" And by a good general education I mean such training and such knowledge that will develop a child's mind and create in him the desire to read and the ability to reason, to enquire, and to understand where understanding is possible ; training, too, which will develop his body and bring body and mind into greater unison, and training which will develop his imagination, his courage, and that too rare gift, the gift of being able to marvel at the wonders of "nature" and to appreciate the beauties of life.—*Education.*

* * *

The Vernaculars.

India owes a profound debt of gratitude to the Calcutta University for declaring in favour of the vernaculars as the media of instruction to boys in all subjects save English itself. Only those who have seen the difference in the interest and grasp of boys who learn subjects in their mother-tongue, and those who struggle with them as presented in a foreign garb can estimate the value of the change. It is cruel to a boy to make him strive to master at one and the same time, a foreign language and a difficult new subject, for while he is groping after the words, he loses the facts the teacher is trying to describe. Moreover, if he learns his subjects in his vernacular, he can learn English far more effectively, for it can be taught conversationally, by stories, by interesting paragraphs, and he learns "English as she is spoke" by English people to-day, instead of as it was written two centuries ago; besides he has no temptation to write commonplace letters in stilted language, or to send a note in Miltonese asking for a scholarship. The S. P. N. E. has worked on these lines, and the Calcutta University might do worse than glance over its syllabus on English. The boys and girls learn the language easily and love to read it, acquiring a healthy taste for English literature. We hope that all schools conducted on National lines will follow the Calcutta example.—*The New India.*

Measure badly needed.

One cannot help wondering at the attitude that has been taken up by some Europeans in regard to the Regulation that has been recently adopted by the Senate of the Calcutta University in regard to the teaching of English in the University. Now what is it that the new Regulation seeks to do? Does it seek in any way to restrict the study of

English or to penalise those who wish to make a special pursuit of the language? Or does it affect to improve the general level of English-speaking ability in the Province, by postponing the age at which a student will take up the study of the language till such a time as he is mentally fit to cope with the difficulties inherent in its acquirement? Undoubtedly the latter. The Regulation seeks to do no more than what great educationists all the world over are trying to effect, *viz.*, to secure a just and true approximation between the everyday life of a student and the intellectual stimulus that is applied to him. Nowhere in the world to-day would the educational conditions of pre-Regulation Bengal be justified or even tolerated, *viz.*, an imposing system of University education built upon a foundation of secondary school *curricula*, in which the medium of instruction is not the native language of the students but a foreign tongue. It is just this state of things which made "Babu" English possible; and unless sensible Englishmen are anxious to incur the suspicion that they would gladly prefer their mother-tongue to be imperfectly spoken rather than have the educational level of this Province raised and improved, they ought to refrain from criticising a measure which—in the eyes of all who have given serious attention to the matter—is long over-due and badly needed.—*The Looker-on.*

An artist of old Japan.

Mr. W. Giles writes in the July number of the *Asiatic Review*:

A unique opportunity has just been afforded us to study the spirit of ancient Japan by a series of paintings exhibited by Shunko Sugiura at the Japanese Embassy...To those who only know Japanese art through the medium of her colour prints this exhibition must have been somewhat perplexing. Further, in this exhibition colour did not play a dominant role, but rather the black-and-white....The artist's work resolves itself into three divisions, the most important being the black-and-white style of Zen, and two phases of colour expression....Seeing styles so diverse one naturally asks the artist which style he prefers and why. I cannot do better than quote his own words:

"Black-and-white is to be preferred because it best reveals the true spirit of Far Eastern Art; all but the greatest fail if they incorporate colour, because with increased difficulties come increased defects, destroying what otherwise might have been a more perfect work of art; whatsoever school of colour one would follow the difficulties are the same, he who is not a colourist would fail in the one as in the other; the divinity of art should be approached with a singleness of purpose and a spiritual purity of heart."

Though sincerity, the true spirit of art, is the same in every country, he regretted the modern tendency of internationalism.

"The art of every country was becoming the misrepresentation of another; each artist must return to the sincerity of his own soul. Further, art by becoming cosmopolitan was degrading its own mission, whilst the social activities of the modern artist was alienating him from his true calling."

Alumni as a Factor in University Support.

At a meeting of alumni officers in American Universities, held at Cornell University in May, 1921, an effort was made to ascertain roughly the total amount of gifts made since the close of the war to American Universities through the efforts of their alumni. It was learned that the total was over $100,000,000. This sum, however, did not represent all the colleges and universities in the country, nor were individual gifts, whether from friends or from alumni included. It involved only the actual cash result from general alumni "drives."—*The American Review of Reviews* (July, 1922).

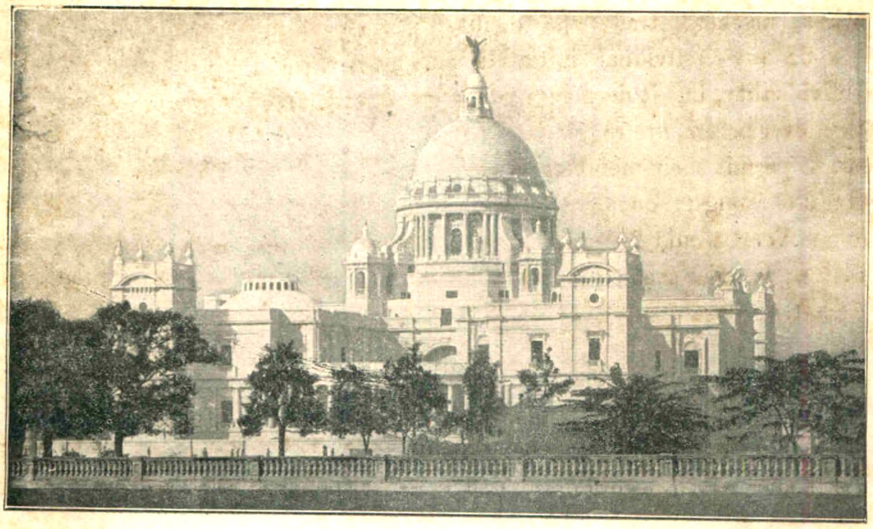
Chinese Trade Unions.

It will no doubt come as a great surprise to many to learn that in China the Trade Union movement has existed for many hundreds of years and to-day, in that vast country, it has a strength and power which is not equalled in any other country in the world. But the movement does not go by the name of a Trade Union movement, nor are the different branches called Trade Unions . . . they are called Guilds or Tongs, the latter title being derived from the fact that each Guild has its own Temple or Hall, and these have fancy names ending in Tong. So widespread are these Guilds throughout the vast Republic that even outlaws, thieves, and beggars have their Guilds or Trade Unions...

It is in China where one sees the Guild or Trade Union as a really democratic institution. Its decisions are reached by majority vote, and every reputable man in a trade is entitled to membership. It regulates prices, markets, trade and credit, and every other business factor; it does not destroy individual initiative and does not interfere with any man's individuality, but it does regulate apprentices, and some Guilds now, more than ever before, are regulating the price of labour. Guilds are very careful not to permit their members to ruin the good name of the entire body. The Guild or Tong is one of China's ancient institutions, and Trade Unions in the West would learn much that would be of use to them to-day were they to pay closer attention to the Guild Unionism of the Far East.—*The Socialist Review* (July).

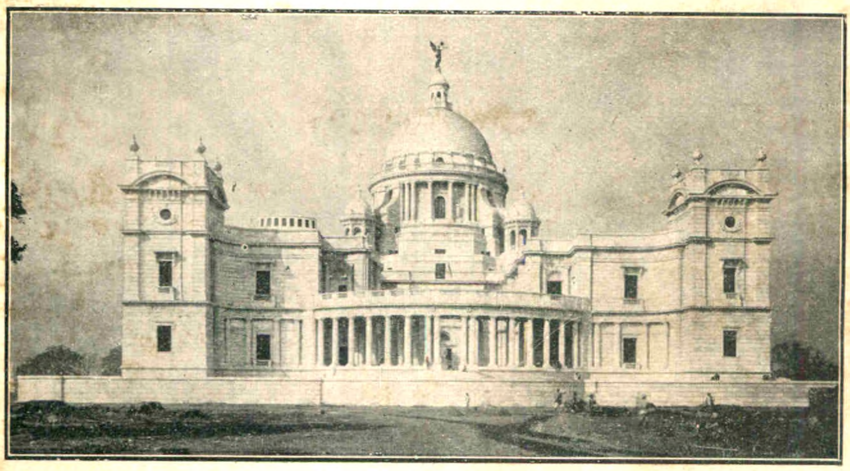
THE VICTORIA MEMORIAL

[By courtesy of the *Bangabani*]

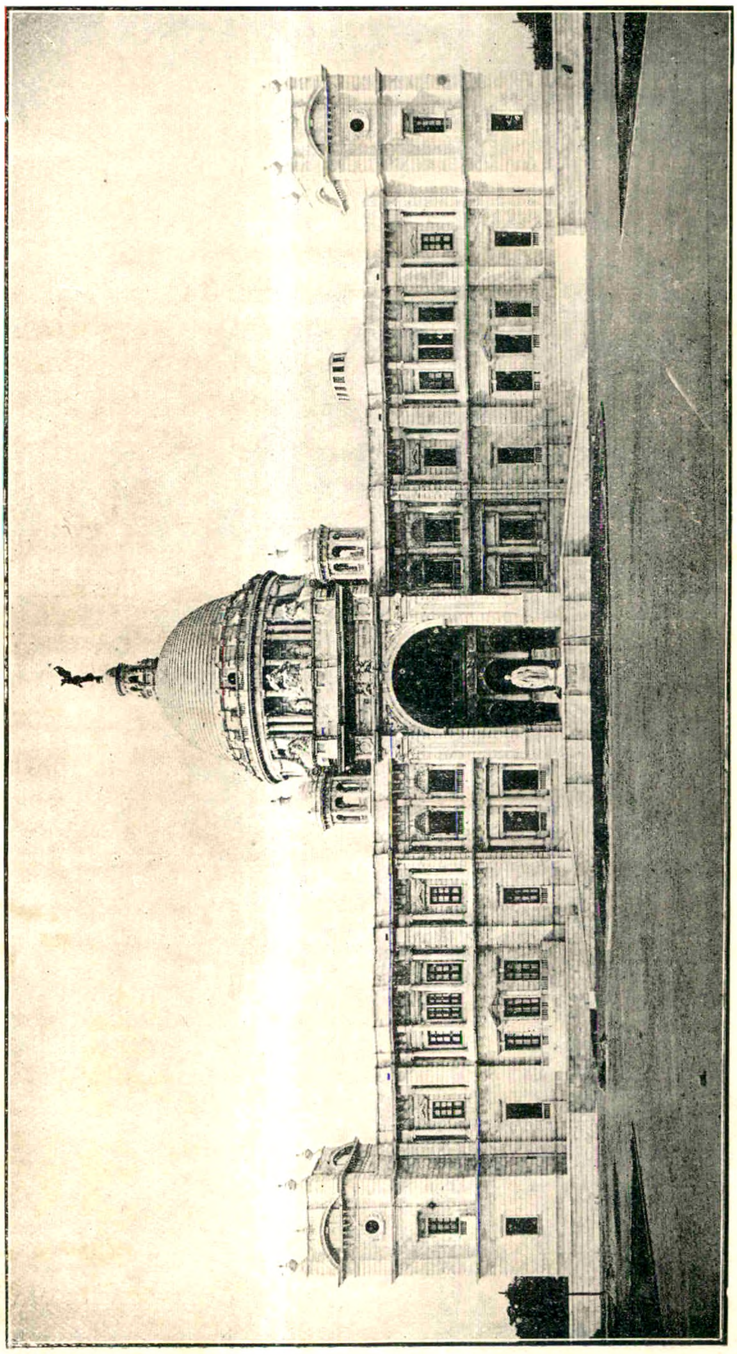


The "Victoria Memorial"

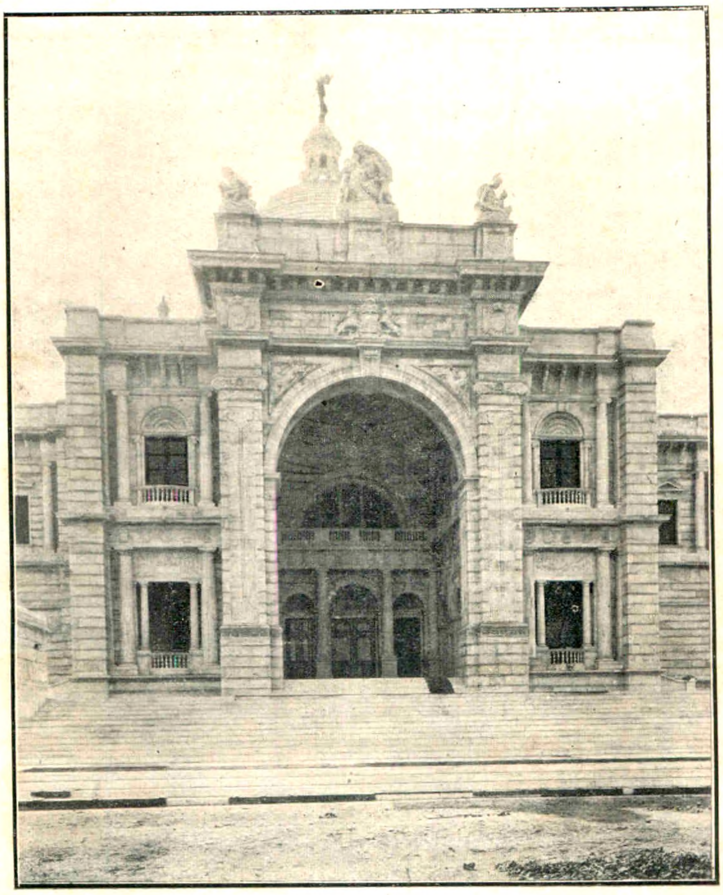
Build to-day, then strong and sure
With a firm and ample base
That, ascending and secure
Shall to-morrow find its place."



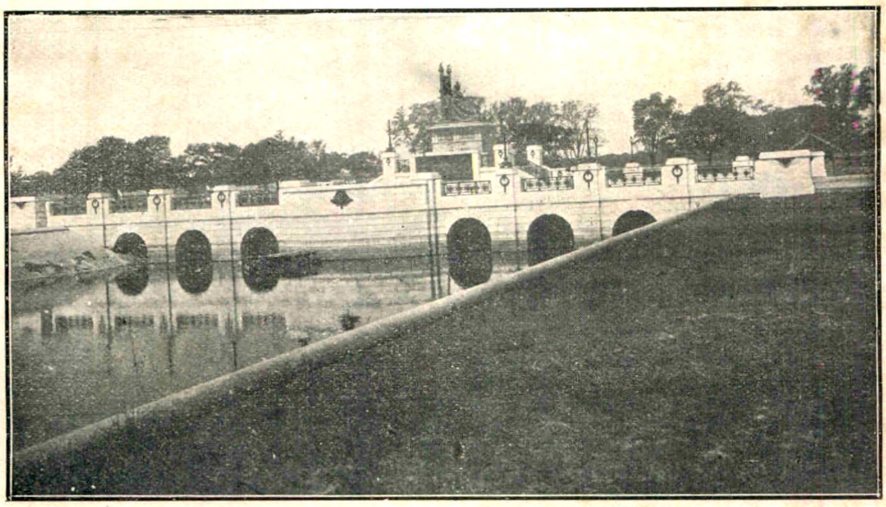
View from the East



The Victoria Memorial—View from the South

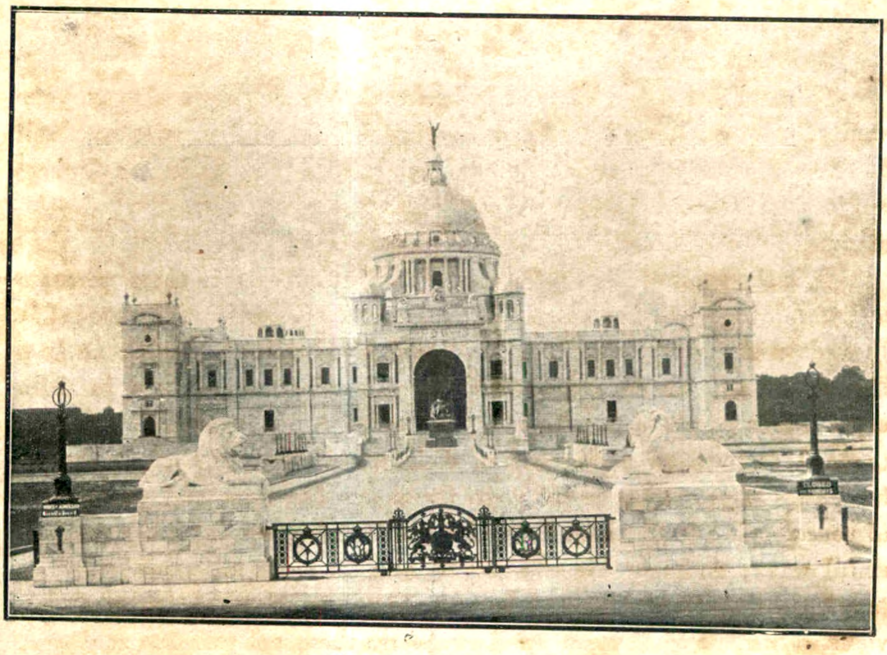


The Main Entrance



From the Queensway Entrance to the Main Building

View from the North-West



View from the North

Reviews

Just Human—Of all the delightful books of essays that I have read within recent years the most delightful is *Dr. Frank Crane's Just Human.* These little essays are literary gems. They are considered verdicts on life and its varied phases. They are shrewd, penetrating criticisms of man's wayward ways. They ripple with laughter. They flash with wit and humour, but with all their seeming gaiety we hear the subdued sighs and sense the suppressed tears of humanity. They are all this and more. They administer gentle rebuke to man's vanity; they inculcate the pursuit of goodness for goodness sake. No new doctrine to be sure, but one, which needs constant re-iteration, for it is so apt to fall into neglect and oblivion.

"As a matter of fact it is love unrequited that is noblest love, charity that is abused that is the finest, and friendship which persists even after proofs of ungratefulness and treachery that does us most credit."

And again;

" Love is not love that must be paid. Love is not love that asks. True love desires only to give. The only tragedy of love is that it cannot give enough."

And once again:

"Trust! it is no disgrace to be betrayed. It is only a slap to your vanity. Be generous! you may be ridiculed for it, but your soul will be blessed though your heart is pained. Alas! it is in the highest motions of the spirit that we are after all most cowardly. To be ashamed to be good is far worse than being ashamed to be bad."

It is the voice of the Prophets of yore that we hear in these precepts and warnings. And are not such precepts and warnings sorely needed in these days of lust and greed, of hate and blood-thirst? Dr. Crane is a fine critic, and an uncompromising apostle of goodness, and in both capacities he stands high. To lift your voice in the cause of goodness; to stand forward as a preacher of disinterestedness; to combat the evil tendencies of your age; to put your finger on the vices and corruptions of your people; to plead for mercy for man's deficiency in virtue and his sinful ways; to know his weaknesses, and to make allowances for the temptations that waylay and entrap him; to fearlessly express your views, regardless of favours or frowns—are these not priceless qualities? Do they not endear the author of these essays to those who love courage, truth, simplicity, directness?

"Charity, humility, grandeur of spirit, come from the knowledge of ourselves.

When you say that Jesus "knew what was in man" you need not add that he was kind and forgiving. Beautiful thought! Sublime thought!—thought that points to many hours of silent thinking; to many years of mature experience.

This, in short, is a fascinating book. It will appeal to youth, for it deals with the glowing enthusiasms of youth. It will appeal to middle age, for it portrays its struggles, its alternating hope and despair. It will appeal to old age, for it emphasises old age's supreme gifts—mellow views, a serene outlook, the end of storm and stress.

In reading this charming little volume I was deeply impressed by one fact—the striking similarity of its views to those of the Eastern poets, thinkers and philosophers. This similarity is not to be set down to plagiarism, but to the fact that the source of human thought is the human heart, which despite changing centuries and fast-fading conventions remains, for ever, the same. East and West, they say, will never meet. Is this true? Is there a dividing barrier between them enduring to the end of time? Whatever may be the case in other spheres, in the domain of letters, there is an unmistakable kinship of soul, an affinity at once indivisible and whole between the East and the West. And why? Because humanity is but one humanity, and its joys, sorrows, travails, sufferings, highest hopes, dearest efforts, cherished aspirations—they are precisely the same here as elsewhere, and this has been so since the sun has shone on earth and the moon has shed its gentle beams on the toiling sons of man. Hence the irresistible, eternal charm of Homer, Horace, Shakespeare, Omar Khayyam! Does the dividing line of nationality sever or segregate them? They are the proud possession of humanity at large. This supreme fact cannot be too often impressed, inculcated, emphasised; especially, in our days of growing racial hatred, racial strife. The citizenship of the Commonwealth of Letters is open to all without let or hindrance. Thence at least will the true light ever shine—the light which will chase error away, dissipate misunderstanding and effect the union of man and man.

These reflections were forcibly borne in upon me by this little book of essays.

Read the essay on "God." Here in a couple of pages we are introduced to Plutarch, Aristotle, Seneca, Dumas and DeTocqueville.

"He is that disposing Mind that sits in the circle of the Heavens and manages the universe." "He is within each consciousness" "He is what every man feels himself ought to be like. Hence He is the judge of all men. He is the one thought, without which all our other thoughts are in confusion. He is the essential order of things."

Turn to the mystic poets of Persia—Rumi, Sana'i, Jami—are they not full of these thoughts ? Does not the East shake hands with the West on the intellectual platform, and shake hand as an equal and a worthy ally of ancient lineage ?

What stir has Omar made in the west ? What love, devotion, passionate adoration is his ? And yet Omar is not an acknowledged Prince of poets in the East.

What priceless treasures lie buried in Eastern literature ! None but those who know the Eastern languages can divine. The more these treasures are brought to light, the clearer will grow the sense of kindredship and affinity of soul between the East and the West. And *this indeed*, not only in the sweet, rapturous lyrics of the poets but in the subtle thoughts of the philosopher, and the serious, exacting mentality of the scientist. Then a new world will be revealed—a world in which Ghazali will extend a cordial hand to Descartes as his unconscious disciple; a world in which Darwin will meet his Arab forerunners of the IXth century; in which the *literati* of all ages will acknowledge and proclaim their kinship and common descent. Such a world only learning can create, and those that help in the creation of this world are the true benefactors of humanity.

And such an one is doubtless Dr. Frank Crane.

S. KHUDA BUKHSH

SIVAJI[1]:—The first acquaintance of the Bengalees and the Marathas was by no means a pleasant one. The hordes of Raghuji regularly visited Bengal for several years in succession, systematically plundered her cities, marts and villages, ruthlessly destroyed her harvests in the field and inspired the awe of her people by their inhumanity. The memory of that awful day still survives in our nursery rhymes.

—"The baby is sleeping, the village is still,
The *bargis* are riding around.
The *bulbuls* have eaten grain in the ear—
Oh! how is the rent to be found?"

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[1] Sivaji—an historical epic—by Kavibhushan Jogindranath Basu, B.A.—Second edition.

Yet Bengal lags behind no other province in rendering her homage to Sivaji the founder of Maratha greatness. Long before Hari Narayan Apte wrote his immortal novels, the late Mr. R. C. Dutt had painted Shivaji in the most glowing colours in his Maharashtra Jivan Prabhat or the Dawn of Maratha National Life. He did not enter into a critical discussion of controversial questions but depicted Sivaji as the ideal patriot and the national hero, the defender of his faith, the supporter of the weak that he really was. About the same time Nabinchandra Sen, the Byron of Bengal, introduced Sivaji in his *Rangamati* not as his hero but as the *guru* of all Indian patriots, as the veritable father of Indian Nationality. The first Bengali Biography of Chhatrapati Sivaji also appeared long before anything of the kind was attempted in any other province in modern times. The late Babu Girishchandra Ghose wrote an excellent drama with Sivaji as the hero; it is no wonder, therefore, that Sivaji Festival should be so popular in Bengal in the first decade of the 20th century. It was on one of those occasions that Rabindranath correctly interpreted Sivaji's message to his countrymen. এক ধর্ম্মরাজ্য পাশে খণ্ড ছিন্ন বিক্ষিপ্ত ভারত বেন্ধে দিব আমি—"in one holy bond of a righteous empire shall I unite, the torn, scattered and divided India"—such was the high ideal that, according to Rabindranath, inspired Sivaji in the middle of the 17th Century. But Bengal alas did not appreciate the meaning of the trumpet call that resounded the hills and dales of Maharashtra on that memorable day, it did not disturb the death-like sleep she was then sleeping. Sivaji's message has reached Bengal after the lapse of centuries but Bengal has been quick to respond. Maratha history has found a place of special honour in the curriculum of the Calcutta University. It has in many ways enriched Bengali Literature. A Bengalee has written a comprehensive English Biography of Sivaji, and we have before us an epic poem of twenty cantos which has within a short time gone through two editions. The author, Kavibhushan Jogindranath Basu, occupies a deservedly high place among Bengali writers. Though he is himself free from Boswellism, his Biography of Michael Madhusudan has been compared by many with Boswell's Life of Johnson. It has already become a classic. Some of his minor poems have earned him a lasting reputation and found a permanent place in our juvenile literature. He wrote his Tukaram and Ahalya Bai when Maratha history and Marathi Literature had very few devotees in Bengal. And at an advanced age when most people seek repose and rest, he has given us two epics, perhaps his last gifts to his motherland. In Prithviraj he has made a critical analysis of the causes of our degeneration. In Sivaji he has indicated the reforms that must precede the regeneration of India.

The poet is the true interpreter of History. His vision is not to be blurred by the masses of worm-eaten documents, chronicles and letters. While singing of Shivaji, Rabindranath sternly forbad history to repeat her impertinent lies; at another place he has truly said—what happens is not always true (ঘটে যা তা সব সত্য নহে) and the real birthplace of Rama was Valmiki's mind. We could not therefore blame Jogindra Babu if he had tried to give his ideals a shape in Shivaji but the lengthy footnotes and references to standard historical works leave no doubt that he has not done so. But an epic cannot be truly historical and perhaps many of us will find in the verses of Jogindranath Basu a more real, a more lifelike and a more living portrait of Shivaji than a mere history can portray. History necessarily lacks imagination but imagination alone can vivify what history can supply a mere skeleton, devoid of blood and flesh, heart, mind, and life. There is no place in this epic for Afzal Khan controversy, for the Javali controversy or anything of that kind, here we find a hero devoted to his country and country's good, a son devoted to his parents, an ideal king who regards all his subjects as his children, regardless of their caste and creed, faith and religion.

The poet is of opinion that *Jnan* and *Karma* alone cannot save India and he insists that with *Jnan* and *Karma, Prem* is also equally necessary. These three principles we find personified in Ramdas, Sivaji and Tukaram. It is a pity that in a standard work Ramdas and Tukaram's contribution to their country's regeneration has been entirely overlooked. But the poet was not likely to commit the mistake of the historian. The knotty question of the respective claims of Ramdas and Sivaji he has entirely avoided. But in his epic Ramdas and Tukaram occupy their rightful place. The poet says—

প্রথম, সমর্থ সাধু রাম দাস স্বামী;
দ্বিতীয়, পুরুষ সিংহ বীরেন্দ্র শিবাজী;
তৃতীয়, সাত্ত্বিক ভক্ত শেঠ তুকারাম।
কে পারে বুঝিতে, হায়! লীলা বিধাতার?
তাই প্রেরিলেন তিনি হেন মহাপ্রাণ
তিন জনে সমকালে। জ্ঞান, কর্ম্ম, প্রেম,
মূর্ত্তিমান, যেন নব ত্রিবেণী-সঙ্গম
বিরচিল আসি, পুণ্য মহারাষ্ট্র ভূমে।

The path of duty is, however, strewn with difficulties and Sivaji was confronted with difficulties of all sorts from the very beginning of his career.

Jogindra Babu's Shahaji may be different from his historical model—he is the type of cautious wisdom, old-world loyalty and routine life, in short the shrewd, cautious worldly-wise old man, that in every age in every country stands in the way of the young idealist. The young man, however, was not to be overawed by the ugly vision of disgrace, imprisonment, and death and Shahaji had to step aside. Here, of course, we find another instance of the old age yielding to youth, caution yielding to passion and worldly selfishness doing homage to selfless idealism.

Jogindra Babu would not confine women in the seclusion of the *harem* and deprive them of their right to serve their motherland. Ramdas had many disciples, but not a single man among them has been given prominence. It is Akabai a lady of extraordinary ability who disseminates Ramdas's teachings among her country women and urges them to take their stand by their brothers, husbands and sons in the struggle for liberty and if need be to take their place. In a heart-stirring sermon she tells her audience—

মহারাষ্ট্র নারী মোরা কার হতে ন্যূন?
নাহি কি হৃদয়ে ভক্তি, শক্তি বাহুযুগে
আমাদের? প্রাণ দিতে কাতরা কি মোরা?
পূজি' মহাশক্তি নিত্য ভাবিব কি চিতে
শক্তি হীনা নারী? ধিক শিক্ষা, দীক্ষা হেন!
কর পণ, সুখ, স্বার্থ বিসর্জ্জিয়া সবে,
দিব শক্তি পতি পুত্রে সঙ্কটে, বিপদে;
দিব প্রাণ রণক্ষেত্রে প্রয়োজন যবে।

as her *guru* had once told her—

অভিশাপে গ্রস্ত দেশ, সহায় যদ্যপি
নরের না হয় নারী,—মাতা, স্বসা, জায়া
না হয় মিলিতা পুত্র, ভ্রাতা, পতি সনে,
পাতকের প্রায়শ্চিত্ত না করে মিলিয়া,
এ পতিত দেশ কভু না হবে উত্থিত।

and this also indicates the fundamental principle which the epic preaches. National degeneration is the result of national sins and these sins must be expiated for before the fallen nation can expect to come into its own. The goddess Bhavani tells Shivaji that the downfall of the Hindus is the direct result of their cruel extermination of the Non-Aryans and the degradation of the surviving men and women of that unfortunate race. The fact, therefore, suggests that the ban of untouchability should be entirely removed. He is an optimist and believes in the ultimate regeneration of his country but he urges upon his countrymen the necessity of unity and the still greater need of expiating for their past sins.

পাপে ধ্বংস, পুণ্যে স্থিতি বিধি বিধাতার ;
করে পাপ হিন্দু, নাহি পাবে অব্যাহতি ;
করে পাপ মুসলমান না পাবে নিস্তার ।

And this conclusion is amply justified by Maratha History. Shivaji boasts that he never plundered the poor or molested women; the temple and the mosque, the Brahmin and the Pir were not only safe from military violence in his days but amply provided for by suitable money grants or *Jagirs*. But what an awful picture of Jasawant Rao Holkar's raid we find in a contemporary ballad.

"They stayed not to weigh or to measure the spoil,
They stripped off the grain from the sheaves on the soil;
Not Chandi was safe, nor Ganpati the wise,
Nor Shiva the ruler of destinies :
His pindi was broken, then who could expect
That the pots of the housewife a god would protect ?
No order was left, every rank was confused,
Preceptor and pupil were robbed and abused :
Every villain and traitor, and rebel came forth,
And stirred up revolt from the south to the north,
From the south to the north, from the east to the west,
From the sea to the Ganges the land they infest,
The gold of the rich, the rags of the poor,
They strip, and the Brahmins they seize and secure.
They bind them in prison, and sentinels stand
Around them and tramp on each road in the land.
No escape ! from the wife of the peasant they tear
The pearl-studded jewel that fastens her hair,
From the peasant they wrest all his hoarded Rupees
The grain from his grain pits, the food off his knees,
If any delays or refuses to give
He tastes such a beating that scarce he will live."

(*Ackworth, Maratha Ballads*)

What a contrast between Shivaji and Jasowanta Rao. No wonder that Maratha Empire was in a state of decay and disruption when the ruling chief could perpetrate these atrocities !

The poet has not been well advised in sanskritising Marathi names. Murari Pant, Yashaji and Sakhi Bai should have been Murar Pant, Yesaji and Sai Bai. He has also committed a sad mistake when he makes a *tittir* (partridge) sing from a mangoe tree. A *tittir* will ordinarily be found on a grassy plain or in a thick bush of scrubby shrubs.

It is needless to say that the eventful life of Shivaji offers a fit subject for an epic and the present work should find its way to every house in Bengal in these stirring times of dawning national consciousness.

S. N. S.

SIKHISM.

The Japji or Guru Nanak's Meditations; The Growth of Responsibility in Sikhism—By Professor Teja Singh, M.A., of Khalsa College, Amritsar (The Sikh Tract Society, Lahore).

The two little books by Professor Teja Singh are welcome as from a Sikh thinker. Both are very readable and give an excellent idea of what the Sikh faith is at its root. The translation of the *Japji* is done in fine style preserving as far as may be the spirit of the original. As a book of meditations the work would prove of great interest to students of comparative religion. It is a pity that few students outside the Punjab have thought of studying Sikhism. Hence Professor Teja Singh's works deserve wider publicity. The message of Guru Nanak would appeal to the best in Indian readers, and even in his original language should present no special difficulty. It is the message of India through all her millenia of history—to whichever province, to whichever age the messenger came—the message of the brotherhood of humanity and of salvation through service.

The second tract is a readable but brief history of the faith. The work of each one of the ten Gurus is surveyed and special point is made of the conditions under which each worked and moulded the destinies of the faith. The author has touched the real point of Sikhism when he says that "the Sikh is essentially a disciple" and that "his religion, therefore, is best understood when we regard it as a life, a discipline, and not a history or philosophy." A remarkable history is here presented of the inward evolution of a great movement. In the new India of to-morrow, the Sikh has a part to play even greater than in the past—glorious as it has been—and it behoves all thinking non-Sikhs to-day to appreciate the true inwardness of this faith and to consider what treasures it has to bring to the common stock of India's future greatness.

POST-GRADUATE.

The Labour Problem—(and its complete solution by a complete co-operation and co-ordination between captital and labour), by P. M. L. Varma, pp., 188. The Gokul Publishing House, Budaun, 1922.

The author is to be congratulated on having brought out a thoughtful book on current economic problems. Though the presentation of his case is not forceful and effective and though the wisdom and practicability of the author's schemes may be questioned, the book would repay profitable reading to any Indian. The author denounces machinery by quotations from Manu and Mahatma Gandhi and takes inspiration from Edward Carpenter and Norman Angell on the one hand and the Indian social structure on the other. The author's intention is to awaken Indians to a glorious consciousness of bringing in a new dawn of community-understanding and community-spirit (p. 54). He tries to remind them of the glorious days of Gupta Renaissance when India again become the model of world culture 'with manifested society consciousness.' In fact it is this Gupta age (c. 350 A.D. to 750 A.D.) which, through the Arab culture contributed to the awakening of Southern Europe in the 14th century and is in many respects the direct inspirer of many of the modern bases of West European culture. The author believes that thanks to the modern wave of learning as facilitation by the printing press and the modern means of communication 'we are moving in a body to a world-Renaissance—and with the greater unfolding of spiritual consciousness coming to so many of our race we would have a whole race of Yogis and Brahmins and not only an order in the whole.'

All honour to those who work with a mission of truth and hope.

P. M.

The Aryan Ideal—By Prof. T. L. Vaswani, Ganesh & Co., Madras, 1922.

Prof. Vaswani is now well-known. In his forceful language he tries to probe into the mysteries of Indian culture. The chapters entitled the heart of her culture, 'an ancient university,' the Upanishads and the modern man would trace up any Indian, while the charming story about *the rock of sacrifice* is a fitting close at the end. His pronouncement is characteristic of this age of Vivekanand—Rabindranath—Gandhi. "India's gift to the Nation is not big machines, not the paraphernalia and comfort of civilisation but the vision of the one-in-all, the vision that makes us sons of the spirit."

P. M.

The Mind of the Indian Government—By Bernard Houghton, I.C.S. (Retired) (Ganesh and Co., Madras).

Mr. Bernard Houghton was once a wheel in the machinery of the Indian Government and he has shown by masterly psycho-analysis how the "group-mind" of the Anglo-Indian officialdom acts. As a study in psycho-analysis this little booklet forms an important contribution. The "group-suggestion," ever-latent in every human being, overcomes all outward polish, all outward profession of high Ideals. Only the true Yogi can control this sub-conscious self. What the author says of Anglo-Indian officialdom should serve as a warning to our over-zealous patriots. Hence the insistence of Gandhi upon non-violence. How far this insistence is becoming woven into the subtle sub-consciousness of the Indian mind can only be seen in times of stress. The pit into which Anglo-Indian has fallen is pointed out. Let not Indian Nationalists also walk into it. It is not enough to profess high Ideals, they have to be worked into permanent possessions of the inner self, then alone comes true balance and Yoga to the individual as to the nation. The path is full of pitfalls and we see in this book one of these. Mass-movements like that going on in India has to be regulated only by great Yogis—men of perfect control always listening to the "still small voice" within above all the turmoil of battle. The *Gītā* has quite clearly pointed out this danger of mass-movements when it has said, "Let no wise man unsettle the mind of ignorant people attached to action."

BOOKWORM.

II. SOME CHARGES AGAINST THE CALCUTTA UNIVERSITY AND ITS *PERSONNEL—contd.*

Next, we proceed to examine some of the suggestions made by Professor Sarkar for the "reform" of the Calcutta University. The Governor-General in Council appointed a Commission in 1917 to enquire into the working of the present organisation of the University of Calcutta and its affiliated colleges; and "*in the light of the best expert opinion upon the present requirements of University instruction and organisation,*" to recommend any changes of constitution, administration, and educational policy which may appear desirable. Some eminent educationists who were fully acquainted with the recent developments of university education in the United Kingdom were selected for this purpose, and with them were associated three persons thoroughly familiar with the peculiar conditions prevailing in India. The Commission, having for its President such an eminent educationist as Sir Michael Sadler, examined many witnesses, consulted every shade of opinion in connection with the subject of their enquiry, discussed, in detail, the present working of the University and its affiliated colleges and then submitted their recommendations for reform in 1919, consisting of five ponderous volumes. The Government of India had to spend a sum of six lakhs in that connexion. Even after such comprehensive recommendations of an expert body, based on a patient and prolonged enquiry into the present working of the Calcutta University, it remained for *the great educationist of Cuttack* to offer new suggestions for "reform." Where was he with all his peculiar ideas of "reform" while the Commission was sitting?[1]

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[1] We read in the Report of the Commission "in order that no one with evidence to offer should be precluded from submitting his recommendations, the following communiqué was published in the Press in February 1918: The Calcutta University Commission have now received numerous replies to the set of questions issued by them in November last.

Would it not have been more fitting to have placed all his views about the reform of the University before the Commission? His special solicitude for the "reform" of this University naturally rouses suspicions in us. Whatever his object may be, we are quite prepared to examine his proposals on their own merit.

Professor Sarkar observes that "the first and foremost reform, or more correctly the sole means of saving the life of the University, is to raise its financial administration from a Micawberian basis to that of commonsense." We have examined and showed the hollowness of propositions of this kind in some detail in our article on "University Education in Bengal" published in the May number of "The Calcutta Review," to which we refer our readers. All that we can do here is to offer some further observations.

Professor Sarkar is trying to create an impression abroad that a considerable part of the Bengal taxpayer's money is wasted upon financing the prodigal expansion of the Calcutta University, which, we venture to assert, is far from true. The Hon'ble Minister of Education in Bengal in his budget speech gives us the actual figures of money spent by the University in its enthusiasm for expansion :[1]

> "In 1920-21—I am quoting from the actuals,—the Calcutta University spent on the Arts side of Post-Graduate studies Rs. 4,65,000 and odd. On the Science side under Post-Graduate, it spent only Rs. 1,06,000 and odd, and over and above this, on the Science College it spent Rs. 1,77,000. Out of this sum for the Science College it must be remembered Rs. 1,30,000 came from the Palit and Ghosh Trusts. The position was that on the Arts side the University spent out of its own funds Rs. 4,65,000 and on the Science side only about Rs. 1,58,000. In the previous year, on the

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Any communications which it may be desired to make to the Commission in regard to the questions or to other matters should be addressed to the Secretary of the Commission." Hence no gentleman with any sense of dignity and honour can justly complain that he was precluded from submitting the recommendations.'

[1] Vide, *Bengalee*, March, 5, 1922.

Arts side it spent Rs. 3,97,000 and odd and on the Science side including Science College it spent about Rs. 97,000 excluding the income from the Trust funds. In 1918-19 on the Arts side it spent Rs. 3,73,000 and on the Science side about Rs. 1,20,000 including Science College. In 1917-18 it spent Rs. 2,34,000 on the Arts side and Rs. 40,000 on Post-Graduate studies on the Science side and Rs. 2,39,000 and odd on the Science College."

By the way, we may observe that the Hon'ble Minister of Education complains that more money is spent by the University out of its own funds for the development of post-graduate studies in arts than in science. He leaves out of account, of course, the income from the Trust funds. Why the income from the Trust funds should not be regarded as *University's funds* we are at a loss to understand. In all the progressive countries of the world whatever comes to swell the funds of the University either in the shape of tuition and examination fees or in the shape of grants, parliamentary or otherwise, or in the shape of endowments and subscriptions is regarded as funds of the university. This is why the finances of universities are viewed by scholars to rest on what may be called a "three-legged stool." But the Hon'ble Minister of Education in Bengal holds that the trust funds should not be viewed as University's funds. Leaving aside all these considerations, on reference to the actual figures we find in 1919-20 the University spent Rs. *3,97,360* on the arts side and Rs. *2,28,053* on the science side (including the Science College). In 1920-21 it spent Rs. *4,65,058* on the arts side, and Rs. *2,84,455* on the science side; and in 1921-22 it spent about Rs. *4,60,580* on the arts side and about Rs. *3,89,355* on the science side (including the Science College). Be it noted that the number of students reading in the arts department is about *1,100*, and on the science side the number is about 185. Having regard to these figures, the allocation of money for the arts and science departments in the university does not seem to be unfair. Again, including the upkeep of the Law College, in 1919-20 the University spent Rs. *8,35,656*, in 1920-21 Rs. *9,60,988*, and in 1921-22 about Rs. *10,81,303* for the development of post-graduate studies in arts, science, and law. *Thus on the average the University spends about nine lakhs for the whole of the post-graduate department including the Law College. It must be borne in mind that this sum is spent for teaching about 3,000 students in 21 different departments of knowledge.*

The University Grants Committee of the United Kingdom have made it a point not to raise a college even to the status of a minor university unless it has the minimum income of £1,00,000 or 15 lakhs of rupees. Hence a minor university in the United Kingdom must have at least an income of 15 lakhs of rupees to deserve the name of a university; but the expenditure of a little more than one-half of that sum for the development of 21 departments of knowledge in Calcutta is deemed improper by some of our countrymen. It may be contended that in a poor country like India so much money cannot be spent for higher education. We point out in reply that the question of poverty does not arise when a military budget of 63 or 64 crores is passed, the question of poverty does not arise when the police and other "departmental" budgets are passed, the question of poverty does not arise when the pay of the higher officers of the different departments is increased; but the question of poverty is vehemently put forward when the budget of the Calcutta University comes up for discussion. All other kinds of expenditure in a poor country like India can be legitimately increased except those on higher education in the Calcutta University! Such things are possible in India alone and not in any other civilized country of the world.

We learn from a paper of Dr. Adami, Vice-Chancellor of the University of Liverpool, that in 1921-22 the estimated income of the University of Birmingham was *£119,264*, that of Leeds *£137,500*, that of Liverpool *£151,776*, that of Manchester *£147,687*, and that of Edinburgh *£204,245*. *We learn from the same authority that although 21 English Universities and Colleges (excluding Oxford and Cambridge), have been conducted with greater care for economy than during the past year, yet their estimated deficit is altogether £210,435*. With all possible care for economy, the Universities of Cambridge and Oxford ran into deficit and a Royal Commission was appointed to enquire into the working of both these time-honoured institutions and to enquire into their present requirements. The Commission in its report recommended that each of them must have a grant of £1,10,000 practically without any conditions whatever in order to preserve their very existence. The English people never complained that the Universities ran into debt because of their extravagance and mismanagement and never thought of curtailing the " branches and subdivisions " of studies prescribed on the plea of economy; but were ever ready to render adequate help to these institutions of higher education, for they appreciated the necessity of higher education. But in Bengal the Hon'ble Minister of Education is for reducing the " branches and subdivisions " of the Calcutta University on the ground of economy alone!

The universities of the Dominions are also suffering from lack of funds. We learn from Sir Robert Falconer, President of the University of Toronto, Canada, that "*in the overseas universities the same conditions prevail as in the old country, overcrowded classrooms and laboratories and diminished exchequers.*" The universities of the United States, of Germany, France and other progressive countries of the world are also much embarrassed for want of money. In the face of such evidence, is it proper and reasonable to censure the University of Calcutta alone for the deficit of a few lakhs? If the University of Calcutta has shown " criminal thoughtlessness " in its enthusiasm for expansion, the universities of the other progressive countries of the world are equally guilty of the same charge.

Now, passing on to Bengal we find that the University of Dacca has been granted 9 lakhs for teaching about 1,000 students. All income derived from fees and other sources is also being collected and expended by that University. The income from its fee fund must be more than a lakh. The University of Dacca has up till now undertaken study and research in 11 different departments of knowledge, namely English, Arabic and Islamic studies, Sanskrit, Philosophy, History, Economics and Politics, Mathematics, Physics, Chemistry, Education, and Law. *Thus we see that the University of Dacca spends about 10 lakhs for teaching about 1,000 students in 11 different departments of knowledge including Law. But the University of Calcutta, as noted above, spends only 9 lakhs in the average for teaching about 3,000 students in 21 different departments of knowledge including Law. This clearly makes the differential treatment of the Government more manifest.*

The Sadler Commission recommends that "an annual grant of perhaps 7 lakhs (for 1,500 students) ought to be sufficient to give the University (of Dacca) a good start."[1] But the Government has generously consented to grant to the Dacca University 9 lakhs—a sum exceeding by two lakhs the amount recommended by the Commission. But no such generosity has been shown by the Government for the development of post-graduate studies in the Calcutta University. It allows us only about 78 thousand, exclusive of inspector's pay and travelling allowance, etc., out of its public revenues. The Government has appointed an educationist having sufficient knowledge of higher education in the United Kingdom as the Vice-Chancellor of the Dacca University, and so it cannot be reasonably held that under the management of such an expert it is being run on extravagant lines.

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[1] Volume V, p. 271.

Under these circumstances, can anybody with any sense of fairness bring the charge of extravagance and mismanagement against the University of Calcutta? We ought to take our stand on facts and not on wild fancies.

We have pointed out elsewhere that the Government is responsible for the bankruptcy of the premier University of India. But there are men who assert that the University has to thank itself for its bankruptcy and not the Government. They point out that "the Government told the University plainly at the very outset that they were not in a position to make any grants in the near future beyond what they were paying." But in what connexion has the Government said so? They point out in reply that the Government said so in its terms of reference to the Committee which was appointed to consider the question of post-graduate studies in 1916 and that Sir Ashutosh Mukerjee himself was the Chairman of this Committee. Even the Hon'ble Mr. P. C. Mitter, the Minister of Education, once used this very argument to support the past policy of the Government of India with reference to the Calcutta University. But is this argument at all sound and tenable? Far from it. The Government of India in its terms of reference to the Committee had simply defined its scope and had asked it to frame its recommendations "merely with a view to the best expenditure of existing funds," having in mind the fact that "further grants for Post-Graduate Education cannot be expected in the near future." *These terms of reference are meant for that particular Committee and not for the Senate—the body corporate of the Calcutta University.* The scope and function of the Committee appointed for a special enquiry is one thing and that of the Senate another. The instructions given to the Committee appointed for a special enquiry can on no account be identified with an open warning given to the Senate. So we do not see why and how the Senate stands bound by the terms of reference prescribed to the Committee appointed to consider arrangements for Post-Graduate teaching in the Calcutta University, simply because Sir Asutosh Mukerjee himself happened to be its President. In 1917, the Government of India appointed another powerful Committee to investigate all the problems connected with the Calcutta University and to make recommendations "in the light of the best expert opinion upon the present requirements of university instruction and organisation." If the scope of the previous Committee was limited to the expenditure of existing funds, the latter Committee which is known as the Calcutta University Commission (1917-19) had no such limitation. If one argues that the Senate is bound by the terms of reference to the Committee appointed in 1916, it may be pointed out that that limitation does no longer exist, as it has been removed by the Government of India itself in its terms of reference to the Commission appointed in 1917. In reality, the Calcutta University is not bound by the terms of reference to either of these Committees; and it is not correct to argue that the Senate is bound by the terms of reference to the Committee appointed in 1916, which are meant only for that special Committee. Though the supporters of the policy of the Government contend that the University authorities are bound by the terms of reference, but the Government of India itself does not say so. That the Government of India did not mean these terms of reference for the University authorities is evident from the letter of the Hon'ble Mr. (now Sir) H. Sharp, C.S.I., C.I.E., Offg. Secretary to the Government of India, *dated, the 9th August,* 1917, to the Registrar of the Calcutta University, through H. E. the Rector.[1] To set this controversy at rest we give below an extract from that letter: "I am directed to acknowledge the receipt of your letters Nos. 4856 and 5246, dated the

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[1] *Be it noted that the Committee appointed in 1916 to consider arrangements for Post-Graduate studies submitted its Report on the 12th December, 1916, and the letter of the Hon'ble Mr. Sharp is dated the 9th August, 1917.*

27th November, 1916, regarding the arrangements for Post-Graduate teaching in the Calcutta University.

2. *In reply I am to say that the Government propose to defer consideration of the question of granting financial assistance in this connection to the University, pending the receipt of the recommendations of the proposed Calcutta University Commission.*"

The Government of India in its letter does not refer to the terms of reference noted above and it is quite clear that the Senate is not bound by the terms of reference to the Committee appointed in 1916; but the supporters of the policy of the Government discover more meaning in these terms of reference than the framers thereof and hold that the University in its future policy is absolutely bound by those terms. Nothing but absolute perversity can lead to such novel inferences. The Government should undoubtedly reward these gentlemen for their invaluable services.

In these circumstances, we conclude that the charge of extravagance can hardly be laid at the door of the Calcutta University and that the Government is wholly responsible for the present bankruptcy of the University.

In the West, men, generally speaking, act from principles, and not from personal motives, and rarely proceed to ruin public institutions because of personal jealousies and animosities. But in India, particularly in Bengal, we notice quite the opposite. Some of our so-called public men often identify persons with institutions and it is difficult to discover definite principles in their courses of action. With such men as our representatives God alone knows when India will secure full self-government on the lines of the Dominions, which is her avowed goal.

Prof. Sarkar condemns "a boundless expansion of the post-graduate classes and the rapid creation of new departments and their subdivision into branches." By way of illustration he points out that in the department of Sanskrit the Regulations recognise nine divisions (*i.e.*, forty papers instead of eight) and that a staff of 22 teachers has been engaged for the work. In Pali, there are forty papers instead of eight and 10 teachers have been retained for imparting instruction in that subject. History, Economics and Mathematics have also been subdivided into numerous branches.

We learn from the admirable Annual Convocation Address of the present Vice-Chancellor of the Calcutta University delivered on the 18th March, 1922, that in 1916, Lord Chelmsford appointed a representative Committee to make recommendations for the early consolidation of post-graduate studies. The Committee unanimously submitted an elaborate scheme of reconstruction. The Senate, after a prolonged debate, adopted the principle formulated in the report and also framed Regulations to give effect to the same. The Government of India accorded their sanction to the Regulations on the 26th June, 1917. In fulfilment of the obligation imposed by the new Regulations, the University authorities provided for post-graduate study and research *in twenty-one distinct departments of knowledge*, namely, English, Sanskrit, Pali, Arabic, Persian, Indian Vernaculars, Comparative Philology, Mental and Moral Philosophy, History, Political Economy and Political Philosophy, Commerce, Pure Mathematics, Applied Mathematics, Physics, Chemistry, Physiology, Botany, Geology, Zoology, Experimental Psychology and Anthropology. The Calcutta University Commission (1917-19), having Sir Michael Sadler for its President, examined critically almost all these divisions and subdivisions and did not consider them unnecessary. On the contrary, the commission recommended that further development was desirable in the following branches of study already existing in the University of Calcutta or its Colleges, and that the provision in some of these subjects was quite inadequate :—(1) Comparative Philology, (2) English, (3) Sanskrit, (4) Pali, (5) Arabic,

(6) Persian, (7) Tibetan, (8) Chinese, (9) Japanese, (10) Philosophy, (11) Experimental Psychology, (12) Education, (13) Physical Education, (14) History including Islamic History, (15) Jurisprudence, (16) Economics and Commerce, (17) Statistics, (18) Physics, (19) Chemistry, (20) Botany, (21) Zoology, (22) Physiology, (23) Bacteriology, (24) Mining, (25) Engineering, mechanical and electrical.[1] Prof. Sarkar thinks that provisions in Pali, Sanskrit, History, and Economics have been made on too lavish a scale; but in the opinion of Sir Michael Sadler and his colleagues they are inadequate.

Further, Sir Michael Sadler and his colleagues append the following list of subjects in which departments of study ought in future to be established as funds permit:—

(1) Indian Vernaculars, (2) Hebrew and Syriac, (3) Greek and Latin, (4) French, German and other European languages, (5) Phonetics, (6) Geography, (7) Palæontology, (8) Astronomy, (9) Entomology, (10) Bio-chemistry, (11) History of Medicine, (12) Meteorology, (13) Aeronautics, (14) Naval Architecture, (15) Agriculture, (16) Forestry, (17) Sciences of Leather Industries, (18) Colour Chemistry, (19) Metallurgy, (20) Sciences of Textile Industries, (21) Ethnology, (22) Religions, (23) Sociology, (24) Architecture, (25) Indian Graphic Arts, (26) Indian Music, (27) Indian Numismatics.

Thus we see that in the opinion of the Calcutta University Commission new branches of study not at present taken up in the University of Calcutta or in its Colleges might advantageously be undertaken as funds allow; but Professor Sarkar is for restricting its present expansion and for curtailing its courses of study to some special branches only.

All eminent educationists of the world are at one in thinking that certain ordinary subjects of higher education must be taught; even though we wish to apply to a University the principle of specialisation. A university cannot wholly confine itself to the study of Physical Science or wholly to Humanism. Students in Humanistic subjects will suffer if they are entirely divorced from Physical Science, and students of Physical Science will suffer if the whole of their course is devoted to Physical Science without an admixture of letters. So every university must teach certain branches of science, certain branches of letters, but special branches of study such as Engineering or Metallurgy may not be taken up by every university.[1] There are universities that have great advantages from their position with regard to specialisation in certain branches of study and those special subjects should be undertaken by them for intensive study. For instance, oriental studies may conveniently be taken up by the Indian Universities for specialisation. The Calcutta University is the first teaching University in British India and is of recent growth. The Universities of Dacca and Lucknow, though more or less based upon the Calcutta model, have taken up some of those very subjects which have already been undertaken by Calcutta. Teaching work, to our information, has not been undertaken to an adequate extent, by any other provincial university. The teaching universities of India are in the course of formation and hence no specialisation can be claimed in their favour. But Professor Sarkar holds that they should be remodelled on the principle of specialisation. In support of his position he cites an extract from an Address of the Right Hon'ble Dr. Fisher. Dr. Fisher says:

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[1] Report, Volume V, p. 286.

"Each University in the country should limit itself to some special field of research. Every University should not attempt to do everything, lest there should be overlapping and waste of energy as well as money."

We are sorry to note that our learned friend often misinterprets the authorities he cites in his support. The object of Dr. Fisher cannot be to disturb those broad bases common to all higher teaching, often with their "branches and subdivisions," which every university must undertake to deserve the name of a University; but his object seems to be altogether different. The Right Hon'ble Mr. Fisher has made his meaning clearer in his Oxford Address delivered some two years ago. He says:

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[1] *Vide* the Report of the Second Congress of the Universities of the Empire (1921).

"Thus Liverpool has specialised in Tropical Medicine, Leeds in Textiles, Sheffield in Metallurgy, Cambridge and Reading in Agriculture, while Oxford remains *par excellence* our principal centre of classical studies."

This indicates clearly the nature of specialisation contemplated by Dr. Fisher. Most of the Universities of the United Kingdom teach Greek and Latin but special provisions for advanced classical studies exist only in Oxford and hence Oxford has specialised in classical studies. Elementary teaching in Agriculture has been undertaken by many Universities of Great Britain but special provisions for their study exist only in Cambridge and Reading. In a country where there are many Universities and where one branch of knowledge is taken up by one of these Universities for specialisation on a large scale and the very same subject is studied intensively by any other University within the State there perhaps will be overlapping and waste of energy as well as of money. This is all what Dr. Fisher says. All the teaching Universities of India of the present came into existence only very recently and no special provision has as yet been made in any Indian "Teaching-University" for the study and research of any particular subject. Hence any such kind of specialisation cannot be claimed for them. Properly speaking, there is only *generalism* (to use a term coined by Professor Lee of the University of Oxford) and not *specialism* in India. Even supposing that there is some *specialism* in India, this cannot form any valid ground for curtailing some "branches and subdivisions" of the Calcutta University as suggested by Professor Sarkar on the false plea of specialisation. The Calcutta University in accordance with its Regulations has undertaken instruction in certain branches of general culture and has developed certain subjects of study. But some of its "branches and subdivisions" are, so to speak, eye-sores to our learned friend. Though these "branches and subdivisions," to our knowledge, have not been attempted to be introduced by any other Indian University, yet they should be curtailed for reasons best known to him. If no other Indian University has specialised in those very "branches and subdivisions" which he wants to reduce, why should Calcutta be deprived of those special advantages of study and research which it already possesses, on the false plea of specialisation? Some of the subjects taken up by the Calcutta University for study and research are also included in the curricula of other Indian Universities and most of them do not specialise in them. Even the recently started University of Dacca forms no exception. If the principle of specialisation is to be applied to India in the sense in which Professor Sarkar understands it, why should other Indian Universities attempt to study the very subjects which have been taken up by the University of Calcutta? Why do they not confine themselves to subjects of study other than those already undertaken by Calcutta? The University of Dacca was started only last year. It would have been quite possible to develop it on other lines. But was it done? Why should the University of Dacca take up some of those very subjects which are being taught in Calcutta? Why did not Professor Sarkar advise the Government to develop it on some other lines? We ask again, where was he with his theory of specialisation? One talks of specialism, but when the term for its practical application comes, a very different line of arguments adopted. We cannot certainly look for consistency from such eminent scholars. One cannot consistently ask the University of Calcutta to give up some of its "branches and subdivisions" on the ground of specialisation, unless he can show that those very "branches and subdivisions of study," have been undertaken by any other Indian University on an adequate scale.

(*To be continued*)

ABHAYAKUMAR GUHA

ERRATA

Re our July number,—

Read "charged to the account of" *for* "charged to" (*page* 77, *line* 13).

" "an" " "a" (*page* 78, *line* 16).

PROFESSOR SARKAR AND *THE MODERN REVIEW*

In the *Modern Review* for July, 1922, there is a comparative note as to the finances of the Universities of Cambridge and Calcutta. The editor of the *Leading Monthly of India* quotes from *The Times Educational Supplement* and points out that " the payments made from the *Chest of the University* of Cambridge " for the year ending in September, 1921, amounted to £105,546 12*s*. 8*d*. and that the estimated income of the Calcutta University would not be less than that of Cambridge noted above.

It was our belief that the resources of Cambridge and Oxford were much greater than those of any other University in the United Kingdom and so we were simply astounded by such a statement. If the statement of *The Modern Review* be accepted as correct, then such minor Universities as Leeds, Birmingham, Liverpool, Glasgow, etc., must be taken as possessing greater income than that of Cambridge, which is *primâ facie* absurd. We learn from the Report of the Second Congress of the Universities of the Empire that the estimated income of *Leeds for 1921-22 was £137,500, that of Birmingham was £119,264, that of Liverpool was £147,687, and that of Glasgow excluding the College of Technology was £173,000.* But the total income of the Cambridge University, according to the said *Review*, is £105,546 12*s*. 8*d*. ! Again, on consulting the Cambridge University Calendar for 1921-22 we find that "the ordinary income of the University apart from the income of special trusts is derived from two main sources, the receipts of the University Chest, and the Common University Fund." We further learn that "the Common University Fund into which the contributions of the Colleges are paid can only be used for certain specified purposes." The statement that appears in *The Times Educational*

Supplement, according to the correspondent himself, gives only the total income of the *University Chest* and not that of the two other University funds which can be used only for specified purposes. Hence it is incorrect to say that the total income of the Cambridge University for the year ending in September, 1921, is only £105,546 12*s.* 8*d.* Even conceding that the estimated income of Cambridge is only £105,546 12*s.* 8*d.*, it is wrong to state that "the estimated income of the Calcutta University for 1921-22 would not be less than that of Cambridge noted above." Without taking into account the income of the trust funds of the Calcutta University which are used only for specified purposes, we may point out that the Budget for 1921-22 shows that the income utilised for Post-Graduate teaching in Arts and Science is only Rs. 5,87,945—about one-third of what Cambridge spends from the *University Chest.* May we ask in all humility on what authority does the Editor make such a misleading statement about the finances of the Calcutta University ?

Professor Jadunath Sarkar has at last come out with his constructive " Educational Programme for Bengal.[1] For ourselves we do not see much of novelty in it. We intend to examine it hereafter. Wicked men whisper aside that Professor Sarkar's object in writing the article is not so much to offer a constructive programme as to secure for himself the Presidentship of the Board of Intermediate and Secondary Education which is to be organised some months hence. Professor Sarkar has attacked the Calcutta University vehemently, and for this qualification, we feel, he may rightly be taken as the fittest candidate for the post. He possesses a further qualification too, namely that he is a *Government official.* The majority of the Sadler Commission recommend that " a majority of the Board should consist of non-official members," and as they have not accepted the view of the minority that the Director of Public Instruction should be the Chairman of the Board, they virtually maintain that the salaried President of the Board should preferably be a non-official too. But the views of the Sadler Commission, we presume, will hardly carry any weight with the born educationists of Bengal. So his officialism should rather be viewed as a qualification in Bengal. Let us wait and see.

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[1] *Vide* Modern Review, July, 1922.

A person writing under the pseudonym of "A. B. C." in the *Modern Review* for July (Was it Professor Sarkar himself?), complains that his name was carefully excluded by a "hidden hand" from the list of witnesses submitted to the Sadler Commission and so he could not offer his valuable suggestions to the Commission, which he is now offering, for our edification. We read in the Report of the Commission that they were anxious to receive guidance from those who were interested in the subject of their enquiry and that they drew up a questionnaire "which was circulated to the Bengal members of the Imperial Legislative Council, the members of the Bengal Legislative Council, the ordinary fellows of the Calcutta University, the members of the Post-Graduate Councils in Arts and Science, directors of public instruction, principals of colleges, inspectors and head masters of schools, the Vice-Chancellors of all Indian Universities, and selected persons in Bengal and elsewhere, including landlords and members of the commercial community." We notice that the Commission followed a certain principle in selecting persons to whom the copies of the questionnaire were forwarded and Professor Sarkar could, for evident reasons, be included in the same list. Though his name was not included in the list of "selected persons," yet Professor Sarkar was given every opportunity of offering his suggestions. For we find that the Commission invited such suggestions by a *communiquè* in the Press in February, 1918.

But Professor Sarkar was not a scholar of the ordinary type and so he justly considered it beneath his dignity to submit his recommendations in response to a *communiquè* issued in the Press. We feel that Sir Asutosh Mukerjee acted unwisely in not including the learned Professor of Cuttack in the list of "selected persons." He has now fully been realising the consequences of his follies.

There is a persistent rumour that Sir Michael Sadler sent in a letter to the Editor of *The Modern Review* contradicting a certain statement attributed to him by Professor Jadunath Sarkar in the last lines of his article on the "Present Condition of the Calcutta University" (*vide Modern Review*, April 1922) and the independent Editor of the Monthly refused to publish it. The rumour stands partially corroborated when we notice that in the June number of the same paper there is a correction to the following effect: "In the last three lines of column 2, page 468, of the last April number of *The Modern Review*, for a piece of unforgettable laughter like the tale of the Invisible Clothes 'read' an unforgettable master-piece of pitying satire, like Hans Anderson's Invisible Clothes." The Editor does not tell us why he was so anxious to make this correction. One is tempted to ask, is it because of the letter of contradiction sent in by Sir Michael Sadler? Assuming the rumour to be true, we inquire, why did not the Editor think it proper to give publicity to the letter of this eminent educationist of world-wide celebrity? We pause for a reply.

A. G.

Ourselves

The results of the Matriculation Examination, "the greatest social event of Bengal" as Lord Carmichael called it once, are out and 79% of the students appearing have come out successful. Out of 19,133 students appearing, 9,506 candidates passed in the First Division, 4,627 passed in the Second Division and 829 were placed in the Third Division. The University apparently is showing great respect to that division, which in the noontide of democracy, appears to be the determining factor in education.

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A craze seems to have seized our new Matriculates and every candidate is anxious to get into the I. Sc. Classes of our colleges. This clearly shows the imperative need for vocational and technical education. The Arts Classes of the private colleges are only half full, while the Science Classes are simply overflowing with the new votaries of scientific education. The avenues open to the I.Sc. candidates are so very limited that unless something is done towards the definite establishment of technical and technological institutes in the near future, high education in Bengal may be doomed !

The I.Sc. Examination results have also been published and 78·2 of the candidates have passed, 878 of them being placed in the First Division, 466 in the Second Division and 82 only in the Third Division. The problem of problems is what line of vocational or scientific training will these I. Sc. candidates adopt? There are but two Medical Colleges in Bengal which admit only 200 to 250 students every year. The principles of provincial, communal and institutional representation have also found their way into these, and deserving Bengali candidates do not get admission into the portals of the Government Medical College in Bengal. Thus, Assam and Behar and Orissa, each has representation in the Medical College, but a benevolent Government of Bengal in the Ministry of Local Self-Government, has never thought of asking for some contribution from them for the maintenance, expansion, and upkeep of the Medical College of Calcutta. But we forget, that a bankrupt Government which can afford to acquire lands and build palaces for European nurses can as well afford to be generous to sister provinces. Besides this provincial representation, our education has also been warped by communal representation. A fair percentage of seats must be reserved for Anglo-Indian and Mahomedan youths, even if their educational attainments are far below the attainments of the average run of students who are turned away as there are no vacancies!

The Sibpur Engineering College admits 20 students every year, and no efforts, so far as we are aware, have been made by a reformed Government to enlarge the facilities for or to extend the scope of education of our I.Sc. and B.Sc. passed students in the department of Engineering,—and yet the Hon'ble the Minister of Education is the President of the Governing Body of the Engineering College. No attempt whatever has been made for the establishment of an Agricultural College for Bengal, and yet agriculture is the only source of living for 90 per cent. of the population. A bankrupt University, fallen on evil times and on evil tongues, "fallen off from its high estate," does not venture to proceed with more criminal and thoughtless expansion in these directions, and Bengal watches, hopes and waits.

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We have great pleasure in publishing in our columns the draft Matriculation Regulations which were recently considered and passed by the Senate. The changes proposed by the University are of a far-reaching and revolutionary character. These are chiefly threefold: firstly, instruction and examination in all subjects other than English, unless the Syndicate otherwise directs, shall be conducted in the vernacular. Secondly, the claims of a compulsory study of a classical language for all candidates have been superseded in favour of what may be appropriately called scientific training. Thirdly, schools have been rendered responsible for the grant of a certificate of fitness of each candidate for at least *one* of the following subjects:

(*a*) Agriculture and Gardening.
(*b*) Carpentry.
(*c*) Smithy.
(*d*) Typewriting.
(*e*) Book-keeping.
(*f*) Shorthand.
(*g*) Spinning and Weaving.
(*h*) Tailoring and Sewing.
(*i*) Music.
(*j*) Domestic Economy.
(*k*) Telegraphy.
(*l*) Motor engineering and Drawing.

The marks for a first division, it will be observed, have been raised from 50 to 60 per cent. so as to get rid of the anomaly of having a larger number of successful candidates in the first division than in the second and third divisions taken together.

The adoption of the Vernacular as the medium of instruction and examination has caused deep resentment and heartburning amongst our anglicised, ossified educationists and politicians claiming to convert Bengal into an English-speaking province. Mr. Huq, who by the way, has not, so far as we know, interested himself in education either secular or religious since the Nineties, sounded a different note of warning and saw in the attempt of the University to impart education through the medium of the vernacular of the candidate a deliberate attempt to ignore Mahomedan interests. All Bengal laughed at the idea of his denunciation of an organised and systematic attempt on the part of the University, to ignore Mahomedan interests. Urdu, according to our Mahomedan friend, was the vernacular of the Mahomedans of Bengal; Mahomedan sacred lore, we were further told, lay embedded in Urdu.

As regards the first allegation, the Controller of Examinations published figures to show that in the year of Grace 1922, out of 3,811 Mahomedan candidates appearing at the Matriculation Examination, 372 students offered Urdu as their Vernacular.[1] It does not require elaborate statistics to prove the point. Anybody, who has living and not an imaginary experience of the state of affairs in the Muffasil, will at once recognise that Bengali and not Urdu is the Vernacular of by far the large majority of the Mahomedans of Bengal. As regards the second point, the regulations nowhere state that the study of Urdu is prohibited in the University, and any Mahomedan candidate is entitled to take up Urdu so as to enable him to lead the life of a pious Mahomedan like Mr. Huq, whom we all know and respect. Far different is the objection of our "friend" of the Chowringhee and the "Pi" of Allahabad, and an autonomous province may well afford to ignore the exposition of sound educational principles in the two journals ever anxious for the welfare of the Children of the Soil. Much misapprehension may,

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[1] MATRICULATION EXAMINATION, 1922

TOTAL NUMBER OF CANDIDATES—19,133

Part.	No. of Mahomedan candidates.	1 No. of those who offered Urdu as their Vernacular Composition.	2 No. of those who offered Bengali as their Vernacular Composition.	3 No. of those who offered Alternative Paper in English.	4 No. of those who offered other than Bengali and Urdu as their Vernacular Composition.	REMARKS.
I	517	332	181	*Nil*	Hindi ... 1 Guzrati ... 1	2 appeared in English only.
II	899	14	832	"	Assamese 48	5 appeared in English only.
III	1,220	19	1,198	"	...	3 appeared in English only.
IV	1,175	7	1,160	"	...	8 appeared in English only.
Total ...	3,811	372	3,371	*Nil*	50	18

however, be removed if the memorable words of Sir Asutosh Mookerjee, the Vice-Chancellor, are remembered, *viz.*, that the University is adopting Vernacular as the medium of instruction in all subjects except English, because the University does not desire that its candidates should learn *less* English, but because it desires to place more time at the disposal of the candidates so that they might pay *more* attention to the study of English. To take a concrete illustration: a boy begins the study of History of India in the Eighth Class of a High English School, he goes up to the "Mahomedan period" till his Fifth Class: he then takes up a short primer of history, written perhaps in not very elegant English, goes up again to the "Mahomedan period" till his Fourth Class; he then begins the study of one of the text books prescribed for the Matriculation Examination by the University, and he again travels the same ground "Up to the Mahomedan period" in his Third Class. All this process involves duplication and sheer waste of energy.

MATRICULATION REGULATIONS

CHAPTER XXX

Matriculation Examination

1. The Matriculation Examination shall be held annually in Calcutta and in such other places as shall, from time to time, be appointed by the Syndicate, the approximate date to be notified in the Calendar.

2. Ordinarily, only students, who have been educated for at least one school year previous to the date of the Matriculation Examination at a school recognised by the Calcutta University for such purpose, shall be admitted to the Matriculation Examination. Private candidates, who have not attended any school for at least one year previous to the Examination, shall also be admitted to the Examination, provided that (*a*) before appearing at such Examination they have passed a preliminary test held for such purpose by a Government Inspector of Schools or under his orders, or by the Headmaster of a recognised

school of ten years' standing, and (*b*) satisfactory evidence is adduced before the Inspector that the candidate has prosecuted a regular course of study, and has been subject to proper discipline.

3. Every candidate, sent up for the Matriculation Examination by a recognised school, shall be required to produce a certificate (*a*) of good conduct, (*b*) of diligent and regular study, (*c*) of having satisfactorily passed periodical school examinations and other tests, (*d*) of probability of passing the examination.

4. Every candidate for admission to the Matriculation Examination shall send in his application with a certificate in the form prescribed by the Syndicate, either to the Controller of Examinations or to a local officer recognised by the Syndicate. Every such application must reach the office of the Controller of Examinations at least six weeks before the date fixed for the commencement of the examination.

5. A fee of fifteen rupees shall be forwarded by each candidate with his application. A candidate, who fails to pass, or to present himself for examination, shall not be entitled to claim a refund of the fee. He may be admitted to one or more subsequent Matriculation Examinations, subject to the conditions laid down in these Regulations.

6. The Matriculation Examination shall be conducted by means of printed papers, the same papers being used at every place at which the Examination is held.

7. The Matriculation Examination shall be a general test of fitness for a course of University studies.

Instruction and examination in all subjects other than English shall be conducted in the vernacular :

Provided that the Syndicate may, in special cases or class of cases, make exceptions to this rule or postpone its operation for a prescribed time.

8. Candidates for the Matriculation Examination shall be examined in the following subjects :

(1) Vernacular	Three papers.
(2) English	Two "
(3) Mathematics	One paper.
(4) Geography	One "

(5) At least one but not more than two of the following :—
  (*a*) A third language, *viz.*, Sanskrit, Pali, Tibetan, Arabic, Persian, Hebrew, Armenian, Latin, Greek, Syriac, French, German, an Indian Vernacular other than the Vernacular of the candidate already taken up as a compulsory subject.
  (*b*) Drawing and Practical Geometry.
  (*c*) Mensuration and Surveying.
  (*d*) Experimental Mechanics.
  (*e*) Elementary Science (Physics and Chemistry).
  (*f*) Hygiene including First Aid.
  (*g*) Botany.

(*h*) Such other subject as may be prescribed from time to time by the Senate ... ... One paper.

Provided that no one will be allowed to obtain a degree in Arts unless he has at some stage passed a University Examination in a classical language.

The course in Vernacular shall include selected texts and a reader on Indian History with special reference to Bengal, including a short account of the administration of British India and of the progress of India under the British rule. Candidates shall be required to translate passages from Vernacular into English and *vice versâ*. Questions shall also be set on Composition and Grammar.

The course in English shall include selected texts and a simple reader on the History of England. Questions shall also be set on Composition and Grammar.

The course in Mathematics shall include Arithmetic, Algebra, and Plane Geometry.

The course in Geography shall include the rudiments of General, Mathematical, Physical, and Commercial Geography, together with the Geography of India in fuller detail.

The course in the third language shall include selected texts. Questions shall also be set on Composition and Grammar.

The Senate shall, from time to time, on the recommendation of the Board of Studies and Faculty concerned, prescribe a detailed syllabus in each of the subjects of examination.

The Senate shall also determine, from time to time, a list of recognised vernaculars. If the vernacular of a candidate is a language not included in this list, he shall have, in lieu of the three papers on Vernacular, (*a*) one paper on Indian History with special reference to Bengal including a short account of the administration of British India and of the progress of India under the British rule and (*b*) two papers on any two subjects other than the one already selected by him out of the subjects specified in Clause (5).

Each paper shall be of three hours and shall carry 100 marks.

9. Candidates for the Matriculation Examination shall produce a certificate that they have received training for a specified period, according to a prescribed syllabus, and under an approved teacher, in at least one of the following subjects :

(*a*) Agriculture and Gardening.
(*b*) Carpentry.
(*c*) Smithy.
(*d*) Typewriting.
(*e*) Book-keeping.
(*f*) Shorthand.
(*g*) Spinning and Weaving.
(*h*) Tailoring and Sewing.
(*i*) Music.
(*j*) Domestic Economy.

(*k*) Telegraphy.

(*l*) Motor-engineering and drawing.

(*m*) Such other subject as may, from time to time, be prescribed by the Senate.

The Senate shall, from time to time, frame rules for specification of the period of training, preparation of syllabus, and recognition of teachers.

The Syndicate may suspend the operation of this section in the case of schools which may be unable, by reason of financial stress or otherwise, to comply with the requirements of the University.

10. As soon as possible after the Examination the Syndicate shall publish a list of the candidates who have passed, arranged in three divisions, each in alphabetical order. Every candidate shall on passing receive a certificate in the form entered in Appendix A.

11. In order to pass the Matriculation Examination a candidate must obtain—

(*i*) In Vernacular ... 36 per cent. of the total marks.
(*ii*) In English ... 36 per cent. of the total marks.
(*iii*) In each of the other papers ... 30 per cent. of the total marks.

And in the aggregate of all the papers 36 per cent. of the total marks.

12. Candidates who obtain 60 per cent. of the marks in the aggregate shall be placed in the First Division, and those who obtain 45 per cent. in the Second Division.

13. Any candidate who has failed in one subject only, and by not more than 5 per cent. of the full marks in that subject, and has shown merit by gaining 480 marks, shall be allowed to pass. In order to determine the Division in which such a candidate will be placed and his place in the Division, the number of marks by which he has failed in one subject shall be deducted from his aggregate.

14. If the moderators are of opinion that, in the case of any candidate not covered by the preceding Regulations, consideration ought to be allowed by reason of his high proficiency in a particular subject or in the aggregate, they shall report the case to the Syndicate, and the Syndicate may pass such candidate.

APPENDIX A.

MATRICULATION EXAMINATION.

I certify that

, duly passed the Matriculation Examination held in the month of , 192 , and was placed in the Division. His subjects were (1) (2) (3) (4) and (5) , and he received a training in

UNIVERSITY OF CALCUTTA :
The .

Controller of Examinations.

Much of the nervousness caused by the sudden change of regulations might also have been avoided if the critics only cared to remember the proviso to the regulation: "that the Syndicate may in special cases or class of cases, make exceptions to this rule or postpone its operation for a prescribed time."

The debate in the Senate on this question evinced a curious state of affairs. Sir Asutosh Mookerjee, Sir Devaprasad Sarvadhikary, Sir Asutosh Choudhury staunchly supported the new scheme, while Mr. Asutosh Shastri, Mr. Herambachandra Maitra and Dr. Jatindranath Maitra were the representatives of the other school of thought.

The Senate has done its duty. The regulations require the sanction of the Government of Bengal which includes the Minister of Education. We do not know if these controversial topics are the subject-matter of one or both of the two bills which, for some time past, were lying on his table in the Council Chamber and which we understand were placed in charge of two very sympathetic members of the Indian Educational Service on special duty. Let us watch and hope

By expectation every day beguiled
Dupe of to-morrow, even from a child.

* * * * *

The University of Calcutta, notorious for its 'criminal thoughtlessness,' has just instituted a degree in commerce, and the Berhampore College is at present the only College in Bengal, which has undertaken instruction in the subject. Draft regulations for the institution of degrees in Commerce and Agriculture were passed by the Senate in 1918 and were duly sent up to; and pigeonholed by, the Secretariat at Simla. Mr. Leather, Principal of the Berhampore College, revived the idea and the present regulations which we give here below will, we hope, duly obtain the assent of the Government of Bengal:—

BACHELOR OF COMMERCE.

1. The examination for the Degree of Bachelor of Commerce shall be held annually in Calcutta and such other places, as shall, from time to time, be appointed by the Syndicate, the approximate date to be notified in the Calendar.

2. Any person may be admitted to this Examination who has prosecuted a regular course of study in one or more colleges affiliated to the University for this purpose for not less than two academical years, after passing the Intermediate Examination.

3. A student not belonging to any affiliated college who has prosecuted a regular course of study under University Professors or University Lecturers, may, on the recommendation of the Syndicate, by special order of the Senate, be admitted to the examination as a non-collegiate University student, anything in Chapter XVI of the Regulations to the contrary notwithstanding.

4. Every candidate shall produce a certificate, (*a*) of good conduct and (*b*) of diligent study, and shall send in his application with a certificate in the form prescribed by the Syndicate to the Controller of Examinations in time so that it may reach his office at least six weeks before the date fixed for the Examination.

5. A fee of Rupees Forty-five shall be forwarded by each candidate along with his application. A candidate who fails to pass or to present himself for examination shall not be entitled to claim refund of the fee. A candidate who fails to pass may be admitted subsequently to one or more Degree Examinations in Commerce on payment of a like fee of Rupees Forty-five. Provided he produces a certificate of good conduct and diligent study for six months before the examination from the Head of an affiliated College or a University Professor or Lecturer in his subject or any other authority approved by the Syndicate.

6. The Degree Examination in Commerce will be conducted by means of printed papers, the same papers being used at every place where the Examination is held.

7. As soon as possible after the Examination, the Syndicate shall publish a list of the candidates who have passed, arranged in two divisions, the first in order of merit, and the other in alphabetical order. Every candidate on passing shall receive a certificate in the form prescribed.

8. Every candidate shall be examined in the following subjects:—

(1) Composition in an Indian Vernacular other than the Vernacular of the candidate or French or German or Chinese or Japanese.

(*Note.*—The Syndicate shall on the report of the Board of Studies concerned, specify the Indian Vernaculars recognised for this purpose and may add to the list other languages.)

(2) General Economics.
(3) Indian Economics.
(4) Modern Economic History.
(5) Economic Geography.
(6) Business Organisation.
(7) Inland and Foreign Trade.
(8) Elementary Commercial Law.
(9) One of the following subjects :
  (*i*) Accounting.
  (*ii*) Banking and Currency.
  (*iii*) Industrial Organisation.
  (*iv*) Agricultural Economics.
  (*v*) Economics of Transport.
  (*vi*) Public Administration.
  (*vii*) Public Finance.
  (*viii*) Statistics.
  (*x*) Tariffs.
  (*xi*) Such other subject or subjects as may be prescribed by the Syndicate, from time to time, on the recommendation of the Board of Studies concerned.

9. One paper shall be set in each of the subjects (1)—(8) and two papers shall be set in the subjects chosen by the candidate from (9). Each paper shall be of three hours and shall carry 100 marks.

10. The limits of the subjects shall, from time to time, be defined by the Syndicate on the recommendation of the Board of Studies concerned.

11. In order to pass, a candidate must obtain 30 per cent. of the marks in each paper and 40 per cent. of the marks in the aggregate. In order to be placed in the first division, he must obtain 60 per cent. of the marks in the aggregate.

* * * * * * *

It may be in the recollection of many of our readers that in the course of the budget debate, the Minister of Education set forth his views on the work of the University in such terms that a leading local paper published the speech with prominent headlines as " A severe indictment—But ready to forgive and to forget." Dr. Bidhan Chandra Ray thereupon gave notice of motions which he intended to bring before the Senate so that the Senate might have an opportunity to express its views on the subject. The Syndicate considered the motion and directed it to be placed before the Senate. The Senate was convened to meet on the 13th March. This, as might have been expected, caused considerable excitement in certain circles, and it is believed that pressure was attempted to bear on the Vice-Chancellor to secure an adjournment, if not cancellation of the meeting. If this be true, the attempt could have been made only by those who did not know the Vice-Chancellor and his antecedents. The meeting was held in due course, and on the motion of Sir Nilratan Sircar, a committee was appointed to draw up a statement on the points arising in connection with the speech delivered by the Minister in the Bengal Legislative Council. Before two weeks had elapsed, the Senate had to meet again to consider a letter from the Government of Bengal on the subject of a resolution adopted by the Bengal Legislative Council on the 29th August, 1921 to force the hands of the Government to appoint a committee to enquire into and report on the general working of the University, in particular, its financial administration, and to recommend such urgent measures of reform as may be necessary. Our readers will recall the speeches made in the Legislative Council on that occasion—their tone, language and contents were in many instances unforgettable. The Government desired that the Senate should take into consideration the resolution as also the proceedings. The Senate accordingly appointed a committee to consider the issues involved. There were thus two Committees appointed to deal with matters considered by the Council on the 29th August, 1921 and on the 1st March, 1922. The first Committee consisted of seven members, *viz.*, the Vice-Chancellor, Sir Nilratan Sircar, Principal Heramba Chandra Maitra, Sir Asutosh Chaudhury, Sir P. C. Ray, Rev. Dr. George Howells and Dr. Bidhan Chandra Ray. The second Committee consisted of the Vice-Chancellor, Sir Nilratan Sircar, Principal G. C. Bose, Sir Asutosh Chaudhury, Professor Hiralal Haldar, Rev. Dr. J. Watt, Rev. Dr. George Howells, Dr. Bidhan Chandra Ray and Dr. Jatindranath Maitra. The reports of the two

Committees, each unanimous, were laid before the Senate on Saturday the 29th July and were adopted without dissent.

We are glad to be able to place before our readers copies of both the reports in the form of a supplement to this issue of the *Review.* We trust our readers will minutely study the reports and will form their own judgment as to the relative part played in the foundation of a great teaching University at Calcutta by the members of the University, the Government of India, and the Local Government, respectively. We shall have to return from time to time to various matters outlined in the report, but meanwhile we reproduce the speech which was delivered by Professor Hiralal Haldar at the meeting of the Senate and was highly appreciated.

* * * * *

"I hope, Sir, that the Senate will agree that the reports of the Committees appointed by it have dealt exhaustively and effectively with the charges brought against this University by the Minister of Education and some members of the Legislative Council. Nothing will be gained by repeating in the course of this debate what has already been stated in the reports and I do not propose to do anything of the kind. I only wish to give expression to my feeling of profound regret that the deplorable situation should have arisen which made the appointment of the Committees necessary. There ought to be no friction between this University and the Government. Sir, I am not one of those, if any such persons exist, who think that the Calcutta University is faultless. But the way to point out its defects and to remove them is not the one adopted by the Legislative Council. What institution in this world is perfect? Not even the Bengal Legislative Council is perfect. Are the universities in England and Scotland free from defects and incapable of being criticised? But can any one point out a single instance of a British University being discussed in Parliament in the spirit and in the language in which the Calcutta University has been discussed in the Bengal Legislative Council? It cannot be said that occasions for criticism and censure do not arise. I will give one example. In a biographical sketch of a distinguished philosopher who, some years ago, was Professor of Philosophy in St. Andrews University, I find this passage:—'He was unfortunate in the time of his coming to St. Andrews. The University was in the midst of a long and bitter conflict, involving litigation and much party feeling, regarding the position of University College, Dundee, the disposition of the Berry Bequest and the establishment of a medical school. The issues of the campaign affected not only the finance but the whole educational future of the University, and its incidents had more than once a disturbing effect on the actual teaching in nearly all the departments of study. * * * The extraordinary and incalculable incidents of the long struggle, when the University was "lost" and "saved" again every few months and the proceedings of the reactionaries in power were as tragic to the teaching staff as they were comic to the detached spectator, brought much worry and distraction to Ritchie, who was able, however, to relieve himself occasionally by the writing of delightfully satiric verse as well as prose skits on the ways and sayings of the tormentors.' The matter, we are told, was ultimately settled by the law-courts—we have not come to that as yet—the Universities Commission and the Privy Council. Was this made the occasion of a bitter attack on St. Andrews University in Parliament? Did the Secretary for Scotland, who is in charge of the educational affairs of that country, get up in the House of Commons and make a violent onslaught on St. Andrews? No, Sir, nothing of the kind. They, in the West, not knowing what spirituality is and possessing only materialistic instincts, manage things very differently. They understand that the function of a Minister is not to attack but to defend against attacks the departments with which he is in touch. If any of these departments be at fault, it is his business to set it right by methods other than denunciation in public. A Minister is not a hostile critic seated on the opposition benches.

Sir, it is a matter for great regret that the Legislative Council should be so anxious to interfere with the autonomy of the University. Is it not an irony of fate that a body which has come into existence in consequence of the adoption of the policy of satisfying the country's desire for freedom should begin its career by making an attack on the freedom of the University? It is true that the state has authority over all subordinate corporations, but this does not mean that the Legislature is entitled to encroach upon the province of a University.

Sir, the trouble which has arisen is due, not to lack of funds only, but also to ill-will and animosity against a particular person. Perhaps, the unpardonable crime of that person is his extraordinary capacity for leadership. Given goodwill, honesty of purpose and mutual confidence, the whole difficulty can be easily solved in the course of half an hour's sitting of a round-table conference. I do not know whether good sense will yet prevail and the situation saved, or whether it will be the melancholy task of some future historian of this country to record that the Calcutta University, which was being transformed into a noble seat of learning by the unwearied efforts of a great man of action, was ruined because men in high places and also in places not very high, had not enough breadth of mind and unselfishness of purpose to rise above personal considerations. Bengal is on her trial, and the manner in which this University problem is handled will show to what extent she is fit for self-government.

Sir, the situation is gloomy in the extreme. The friction between the Legislative Council and the University has reacted very injuriously on the Post-Graduate Department. The work is disorganised, the staff have not been paid for two or three months, and proposals, I understand, are maturing for substantially reducing their salaries. What this means to inadequately paid men in these hard times, every one can understand. They have no other source of income, no travelling allowances to fall back upon. The teachers of the University have fallen upon evil days and upon evil tongues. But they are men of education and culture, and will, no doubt, know how to bear their misfortunes with dignity, unmindful of the taunts of persons who think it manly to sneer at them in their adversity.

But after all, Sir, can the Government, can the Chancellor of the University, afford to look on and allow this sort of thing to go on? I am glad to note a welcome change in the tone of the Minister of Education. His last speech in the Council was very different from the one which is the subject-matter of this report. I hope it is not too much to expect that this changed attitude will be maintained and improved upon.

It is said that the autocratic Vice-Chancellor has squandered the resources of the University by embarking upon a policy of thoughtless expansion. It is not for me to attempt to defend the hero of hundred fights against the charge. I will only ask a question. Why cannot the Government do a very simple thing, an act of bare justice, which will at once remove the consequences of the alleged extravagance? Even the worst enemies of Sir Asutosh Mookerjee cannot deny that no one has ever worked, will work or can work with greater energy and devotion for the Calcutta University than he. With absolute truth it can be said that he has dedicated his life to the University. Now, the Vice-Chancellor of the Dacca University gets a salary of Rs. 4,000 per month. Sir Asutosh Mookerjee has been Vice-Chancellor of the Calcutta University for ten years. If he were paid at the rate of Rs. 4,000 a month—he ought to get more, for the Calcutta University is much bigger than the Dacca University—his salary for ten years would amount to Rs. 4,80,000. Taking into consideration the interest on accumulated arrears which ought in all fairness to be paid, and, a thing not to be neglected in these days, the travelling allowances to and from Bhowanipur and the halting charges in this building for nearly the whole of Saturdays and the days of the High Court vacation, the total would come up to considerably more than Rs. 5,00,000. Why not send a cheque for this amount to Sir Asutosh Mookerjee? I have no doubt that he will at once make it over to this University. The deficit will vanish in a moment and the University will once more begin to see prosperous days."

* * * * *

Dr. Sudhansu Kumar Banerjee, Ghosh Professor of Applied Mathematics, has been offered and has accepted an appointment in the Indian Meteorological Department. Our congratulations to him. The Senate has decided to fill the chair by the appointment of Dr. Nikhilranjan Sen, University Lecturer in the Department of Applied Mathematics, who is now in Germany, on leave, and is engaged on a special study of Mathematical Physics, particularly the atomic constitution of matter. Dr. Sen is a brilliant graduate of this University and has already published a number of original papers in Applied Mathematics in the Bulletin of the Calcutta Mathematical Society and in the Philosophical Magazine of London.

* * * * *

THE ETHICS OF THE BENGAL LEGISLATIVE COUNCIL.

In answer to a question by Babu Hemchandra Nasker, the following statement was laid on the table showing the amount of travelling and residential allowances drawn by each member of the Bengal Legislative Council and the headquarters from which such travelling allowances have been charged for the period, January, 1921 to June, 1922 :—

	Rs.	A.	P.
Afzal, Nawabzada K. M., Khan Bahadur, Dacca ...	4,154	11	0
Ahmed, Khan Bahadur Maulvi Emaduddin, Rajshahi ...	3,727	2	0
Ahmed, Khan Bahadur Maulvi Wasimuddin, Pabna ...	2,799	12	0
Ahmed, Maulvi Azaharuddin, Gulshakhali	3,099	8	0
Ahmed, Maulvi Rafiuddin, Jessore	1,556	8	0
Ahmed, Maulvi Yakinuddin, Dinajpur	4,463	14	0
Ahmed, Mr. M., Kartikpur	2,207	3	6

	Rs.	A.	P.
Ahmed, Munshi Jaffer, Noakhali	3,118	15	6
Ali, Mr. Syed Arfan, Hughli	2,385	3	0
Ali, Munshi Amir, Chittagong	2,213	11	6
Ali, Munshi Ayub, Chittagong	2,930	15	6
Aly, Munshi Saiyad Hossain, Barisal	659	9	0
Arhamuddin, Maulvi Khandakar, Tangail	2,911	4	0
Azam, Khan Bahadur Khwaja Mohamed, Dacca	2,815	4	0
Banerjee, Rai Bahadur Abinaschandra, Birbhum	1,239	9	0
Barma, Rai Sahib Panchanan, M.B.E., Rangpur	3,318	14	0
Bhattacharyya, Babu Hemchandra, Dharampur	3,212	11	0
Chaudhuri, Babu Kisorimohan, Rajshahi	3,393	13	6
Chaudhuri, Babu Tankanath, Moldawar	2,134	6	0
Chaudhuri, Khan Bahadur Maulvi Hafizar Rahman, Bogra	3,169	4	0
Chaudhuri, Maulvi Shah Muhammad, Malda	1,850	10	0
Chaudhuri, Sir Asutosh, Kt.	283	14	0
Das, Babu Bhishmadev, Bhanga	4,551	8	0
Dasgupta, Rai Bahadur Nibaranchandra, Barisal	2,695	10	0
DeLisle, Mr. J. A., Narayanganj	838	0	0
Doss, Rai Bahadur Pyarilal, M.B.E., Dacca	1,898	10	0
Datta, Babu Anandachandra, Chittagong	2,563	8	0
Datta, Babu Indubhushan, Comilla	1,860	0	6
Faroqui, Mr. K. G. M., Comilla	2,434	4	6
Ghatak, Rai Bahadur Nilmani, Malda	1,121	4	0
Ghose, Mr. D. C.	321	14	0
Huq, Shah Syed Emdadul, Comilla	2,390	6	6
Huq, Maulvi Ekramul, Berhampur	2,777	1	0
Hussain, Maulvi Mahammad Madassur, Rampurhat	1,496	6	0
Janah, Babu Saratchandra, Midnapur	611	0	0
Karim, Maulvi Abdul, Faridpur	1,931	14	0
Karim, Maulvi Fazlul, Patuakhali	2,428	0	0
Khan, Babu Debendralal, Midnapur	786	0	0
Khan, Maulvi Hamid-ud-din, Gaibandha	3,282	14	0
Khan, Maulvi Muhammad Rafique Uddin, Jamalpur	4,155	0	0
Khan, Razaur Rahman, Balia	2,570	14	6
Khan Chaudhuri, Khan Bahadur Maulvi Muhammad Ershad Ali, Natore	2,467	0	0
Makramali, Munshi, Noakhali	3,070	3	0

	Rs.	A.	P.
Mallik, Babu Surendranath	214	14	0
Mitra, Rai Bahadur Mahendrachandra, Hughli ...	1,186	4	0
Moitra, Dr. Jatindranath	223	14	0
Mukharji, Babu Satischandra, Hughli	404	1	0
Mukharji, Professor S. C., Serampore	847	10	0
Mukhopadhyay, Babu Saratchandra, Tamluk ...	1,390	12	0
Mullick, Babu Nirodbihari, Khulna	2,524	12	0
Pahlowan, Maulvi Muhammad Abdul Jabbar, Chinaduli	3,813	4	6
Rauf, Maulvi Shah Abdur, Rangpur	2,995	8	0
Ray, Babu Surendranath, Behala	328	14	0
Ray, Kumar Shib Shekhareswar, Tahirpur	2,842	14	0
Ray, Rai Bahadur Upendralal, Chittagong	1,871	14	0
Raychaudhuri, Babu Brajendrakisor, Gouripur ...	1,477	14	0
Raychaudhuri, Mr. Krishnachandra, Chandernagar ...	1,193	8	0
Raychaudhuri, Raja Manmathanath, Santosh ...	2,211	4	0
Rishi, Babu Rasikchandra, Noakhali	3,364	15	6
Roy, Babu Jogendrakrishna, Domesha	2,284	12	0
Roy, Babu Jogendranath, Amrigola	1,892	6	0
Roy, Babu Nalininath, Jessore	2,085	2	0
Roy, Maharaja Bahadur Kasaunishchandra, Nadia ...	1,603	12	0
Roy, Mr. Bijoyprosad Singh, Chakdighi	1,324	6	0
Roy, Rai Bahadur Lalitmohan Singh, Chakdighi ...	1,612	10	0
Roy, Raja Monilal Singh, C.I.E., Chakdighi ...	1,964	13	0
Roychaudhuri, Babu Sailajanath, Khulna	990	0	0
Sarkar, Babu Jogeshchandra, Rangpur	3,511	9	0
Sinha, Babu Surendrnarayan, Nehalia	1,752	14	0
Suhrawardy, Dr. Hassan, Midnapur	1,470	14	0
Travers, Mr. W. L. O. B. E., Jalpaiguri	946	8	3
TOTAL ...	1;52,923	2	3

TRAVELLING ALLOWANCE AND RESIDENTAL ALLOWANCE OF MEMBERS OF COUNCIL.

151. Babu Hemchandra Nasker asked: (*a*) Will the Hon'ble the Member in charge of the Legislative Department be pleased to state :—

(*i*) what are the "usual places of residence" (as contemplated in the rules entitling a member to draw allowances) of the non-official members of the Council;

(*ii*) who are the members of the Council who have drawn travelling allowance or residential allowance or both, and what is the amount drawn by these members since January, 1921;

(*iii*) whether it is the practice, in the case of some mufassil members, to claim and draw travelling allowance back to their headquarters during week-ends when the Council is not sitting in lieu of residential allowance in Calcutta;

(*iv*) how many members have drawn such travelling allowance, and on how many occasions, since January, 1921; and

(*v*) what is the longest and shortest time during which any member has stayed at his headquarters, during any one of these trips?

(*b*) Are the Government considering the desirability of framing a rule requiring members to take the leave of the Hon'ble the President when they return to headquarters for short stays?

(*c*) Have the Government taken any steps to prevent these short and hurried returns to headquarters by members in the midst of a session without any adequate reason?

(*d*) Are the Government considering the desirability of issuing a rule that travelling allowance will be paid, except in the case of members who live at short distances from Calcutta once at the commencement of the session for the journey to Calcutta and again at the end of the session for the return-journey of a member to head-quarters?

The Hon. Mr. H. L. Stephenson replied: (*a*) (*i*) This question cannot be fully answered in respect of the members who do not draw travelling allowance and residential allowance; their usual places of residence in Calcutta are as shown in column 8 of the seventh list of members of this Council. In respect of others who draw their travelling allowance and residential allowance their usual places of residence are as shown in the statement laid on the table in reply to the member's starred question on the subject.

(*ii*) The member is referred to the reply given to his starred question on the subject in this session.

(*iii*) Yes.

(*iv*) A statement is laid on the table.

(*v*) Twenty-two hours and 3 hours, respectively.

(*b*) and (*d*) The question of travelling allowance and residential allowance of members has been discussed by the Council in the debate on various resolutions on the subject and Government is considering the views therein expressed.

(*c*) Yes.

Statement referred to in the reply to unstarred question No. 151 (*ii*) *re.* short trips made by some members since January, 1921 and travelling allowance charged :—

Afzal, Nawabzada K. M. Khan Bahadur, 11 trips ; Ahmed, Khan Bahadur Maulvi Emaduddin, 18 trips ; Ahmed, Khan Bahadur Maulvi Wasimuddin, 15 trips ; Ahmed, Maulvi Rafi Uddin, 12 trips ; Ahmed, Maulvi Yakuinuddin, 16 trips ; Arhamuddin, Maulvi Khandarkar, 10 trips ; Barma, Rai Sahib Panchanan, M. B. E., 10 trips ; Chaudhuri, Khan Bahadur Maulvi Hafizar Rahaman, 11 trips ; Das, Babu Bishmadev, 15 trips ; Huq, Maulvi Ekramul, 13 trips ; Khan, Maulvi Hamid-ud-din, 14 trips ; Khan, Maului Md. Rafifique Uddin 21 trips ; Ershad Ali, 11 trips ; Mullick, Babu Nirode Behary, 21 trips ; Pahlowan, Maulvi Md. Abdul Jabbar, 13 trips.

Comment is superfluous.

* * * *

THE IMPRESSIONS OF AN "IDLE ONLOOKER"

The "benefit performance" in the Bengal Legislative Council on the 12th July last in aid of the University of Calcutta, must have caused a ripple of laughter even in optimistic political circles where restraint is sedulously cultivated. The choice expressions which our self-constituted educational experts of the Bengal Legislative Council must have culled from literature of the days of Wycherley were only matched by the arguments which were advanced in support of their contentions from that golden book ever dear to little people—the book of phrases and fables. Of the "select from the elect" Mr. Huq's tone, manner, language and arguments were inimitable and it, required many a "thumb-down" of Mr. Speaker to stop the gladiatorial combat on which the visitors in the amphitheatre feasted their eyes. Mr. Huq as a pious Mahomedan and the custodian of Mahomedan interests, bitterly complained against the University which ever since the memorable year 1857, "had systematically ignored Mahomedan interests." In the exuberence of his patriotic zeal, his religious fervour and the verbosity of his words, Mr. Huq forgot that from the year 1857 down to the year 1890, the University was presided over by a succession of Vice-Chancellors who were either distinguished British Educationists, or British Jurists or British Statesmen. The second charge against the University according to the speaker was that the University buildings were not situated in sufficiently Mahomedan quarters. Halliday Street and Colutola Street as also the Machuabazar Street and the Zakaria Street, not to speak of the Shankibhanga and Ganra Tala which included within their orbit diverse Mahomedan interests, might very well have satisfied the ordinary aspirations of a Mahomedan, mainly relying upon the principle of local contiguity. But the extraordinary impulses of Mr. Fazlul Huq not merely demanded a Vice-Chancellorship but probably also an ennobling proximity of the University to the sublime atmosphere surrounding his residence. The third charge against the University was that Mahomedan representation in the University was ridiculously low. The principle of communal representation—which was regarded as a mere make-shift, a temporary contrivance by even the authors of the Montagu-Chelmsford Scheme, which enabled Mr. Fazlul Huq and his compeers in the Bengal Legislative Council to dedicate their lives to the cause of the uplifting of the nation and of its very useless adjunct the University—according to him, should be permanently honoured in the statutory constitution of an educational institution. "There had not been a single Mahomedan Vice-Chancellor," continued the speaker, and he threw down his gauntlet in the arena at the champions of the University to say "that there had not been a Mahomedan" fit to hold the post of the Vice-Chancellor when they remembered that "Mahomedans had figured as High Court Judges, while one of their community had been Chief Justice and another was the first Indian elected (selected ?) to the Privy Council." Mr. Huq forgets that the post of the much abused Vice-Chancellor of the Calcutta University is honorary and dame rumour whispers—while it was going a-begging a short while ago—it was offered to a Mahomedan Knight Justice and to another Mahomedan Knight Ex-Chief Justice who were not very anxious to be harnessed to a thankless job with the brilliant prospect of being the butt. of the inglorious mirth of our Legislative orators. To our minds the unpardonable offence that a Viceroy-Chancellor or a Governor-Rector-Chancellor committed was not to nominate Mr. Fazlul Huq as the first Mahomedan Vice-Chancellor of the premier University in India. We have great respect for Mr. Huq's academic attainments and his assiduity and we are confident he would have made an ideal Senator and an ideal Vice-Chancellor. The fifth charge according to the orator was that the University had turned a deaf ear to the representations of the Mahomedan community during the last Ramzan. Mr. Huq's love for his *alma mater* must have been responsible for his frail memory on this subject and the charge forms what they call in Parliamentary language the subject-matter of "terminological inexactitude." The University of Calcutta could not possibly forget that it had to look to the interests of the Hindu students as well and the extraordinary permission to Mahomedan students to sit for a special examination held subsequently does not appear either to have attracted the notice of the orator or to have satisfied his inordinate ambition in matters academic.

Mr. Huq lastly protested strongly against the Vernacular being made the medium of instruction. He was probably then travelling in fancy's light-blue Ether, "warbling his native wood-notes wild" and was dreaming of those venerable people "who had held aloft the torch of learning at Bagdad or at Espahan or at Cairo or at Saragossa." The prosaic account given by the Controller of Examinations of the Calcutta University, however, shows that 10 % of the Mahomedan candidates appearing in the Matriculation Examination in 1922 and 2% of the total number of candidates in the whole Examination took up Urdu as their Vernacular. And surely the interests of the 98% should be sacrificed for the sake of the 2% ! And this in a democracy! Or else Mr. Huq, not satisfied with the Islamic University at Dacca, with its Islamic studies and Mahomedan professoriate, will agitate and agitate until he has a University of his own.

* * * * *

The second in order of denunciation, came the speech of Babu Surendranath Mallik, erstwhile of the Alipur-Bar, a great champion of the Congress at Calcutta, and an upholder of the principle of Economy in the ministerial establishment and a great Educationist himself, being closely connected with two schools one at Bhowanipur and the other in his dear native village. Mr. Mallik cast a longing lingering look behind and the days of his own mighty University under the days of Tawney and Croft loomed large before his mind's eye and yet he wanted "democratization certainly," he wanted " the honeycomb to be destroyed." Mr. Mallik regretted the "existence of the veritable workshop for training graduates in the art of flunkeyism and in the Science of Sycophancy."

"Oh ! for an hour of Wallace wight
Or well-skilled Bruce to rule the fight
Or cry " Saint Andrews and our right."

* * * *

Another sight had seen that morn
And from Fate's dark book a leaf been torn
And Flodden had been Bannockburn "

Mr. Mallik had a blush for his "own dear University " and a tear for the professoriate which had not received its pay for the last 3 or 4 months. "It is a fact," continued the orator, "and a sad fact that these gentlemen are without their pay. These are the gentlemen who have been teaching our boys for years together and these are the gentlemen who would be obliged to go away and leave the University. This is just the time when in its empty stomach we should drop a little medicine. It will do wonderfully good work I tell you." Fine sentiments, couched in the most refined and the most humorous language possible and from the mouth of a veteran educationist who after strongly opposing the ministerial extravagance of a huge salary, has just received a temporary Chairmanship of the Corporation of Calcutta from one of the Ministers, his revered *Guru*, whom he had worshipped with humble devotion and deep admiration since the inauguration of the Bengal Legislative Council!

"The quality of mercy is not strained
It droppeth as the gentle rain from heaven
* * *
It blesseth him that gives and him that takes."

After having prescribed this medicine for the professoriate, Mr. Mallik exultingly cried "after all we are the mightier body, it is the mighty who can alone be relenting and who is the mightier of the two? We can be relenting to those who are smaller than ourselves. They are now down on their knees and asking for money." The alarum goes, the curtain droppeth and "who-so-ever shall smite thee on thy right cheek, give unto him the other also."

The third orator in order of merit in the rostrum of denunciation was Mr. D. C. Ghosh. Mr. D. C. Ghosh's memory of the University must have been very green; he could not at any rate boast of the days of democracy ushered in by Tawney and Croft like his Acting Chief in the corporation, and yet with a wistful longing the orator reminded his audience "that the University can yet boast of a *past* which certainly deserves more than a tear." Mr. D. C. Ghosh was probably thinking of his own experience of his college days under the University. The gravamen of his charge against the University was that the Vice-Chancellor of the University had sent two cheques for Rs. 10,000 each to the Netherlands India Commercial Bank for purchasing German marks. Mr. Ghosh wondered why the Vice-Chancellor of the University without having obtained the previous sanction of the Syndicate, the Senate, the Bengal Legislative Council, the Government of Bengal in the Ministry of Education, and the people of Bengal (we make no apologies to quote the whole list of authorities), had ventured to take the initiative in the matter of purchasing the depreciating coinage of the erstwhile enemy for the purpose of buying books and scientific appliances! Mr. Ghosh, however, dreamt of speculation in the transaction and called upon the Minister "to see that such things cannot happen in the future." Unfortunately, the Minister is not the corporation sole in the University and Mr. Ghosh would do well to enlighten himself by a perusal of the two reports adopted by the Senate which we publish in this number of the *Review*. After all, things whispered in one's ears by a great friend of the University may not always lead a man straight into the domain of solid facts. But we forget that Mr. Ghosh is one of those who rise—

Higher, still and higher
From the earth he springest
Like a cloud of fire
And the blue deep he wingest.

* * * *

The speech of the last of the Big Four, that of Babu Rishindranath Sircar does not require much comment. He was like the Minister of Education, anxious "to improve" the University and to "place the institution on the same high pedestal which it occupied in the past," to the glorious past in the Nineties when Mr. Sarkar's efforts to seek admission to the portals of the University began. Mr. Sarkar in the overabundance of ideas and of cruel memories crowding on him forgot that he began his successful career in 1906, the first year of the Vice-Chancellorship of Sir Asutosh when "dominion was first founded on grace." "Sir, the attitude of the Calcutta University," such was the bitter complaint of the eloquent speaker, "is still antagonistic to this house" as it appears from the fact "that they made an attempt to pass a vote of censure against the Minister of Education in Bengal." Our new-fledged legislator, sheltered behind the cloak of parliamentary immunity, barricaded by his own arguments set forth clearly on paper, should have attempted to introduce a Law of Treason, a Committee of Public Safety and the Guillotine and then the impertinence of the authorities of the University which have been not very kindly to Mr. Sarkar either in the past or in the present, should have been adequately punished.

Then came the sombre speech of the Minister of Education holding an olive branch in the palm of his hand, ever anxious to "improve the University" and ever anxious "to forget the past." "He stood by every word that he had uttered in the Council in this connection last March." Persons who have been familiar with the medical methods of Mr. Mitter would not wonder. He posed as a great physician and appealed to the Council to "allow the patient to live and not to deprive the patient of all means of sustenance and kill the patient by starvation." What charity, what magnanimity! Mr. Mitter, however, forgot amidst the applause of his listening Senate which it has been his destiny to command, that he himself had on more occasions than one sat by the bed of the dying patient, had felt its pulse and had hoped and wondered. Mr. Mitter, however, soothed the ruffled dignity of the members of "the greater and the mightier body" by mentioning to our Legislators that their legislative appetite would be satisfied when the two bills "which lie on his table and which had been drafted by the officers of his department and which he had not yet had time to examine carefully owing to the Council sessions," come up for discussion by the Council in the next cold weather. A bill relating to high education, not based either on the report of the Calcutta University Commission, neither based upon the recommendations of the Senate, but containing within its ambit the priceless wisdom of the two officers of Mr. Mitter's department and of the present Bengal Legislative Council, will, we are sure, offer a novel and an exciting spectacle to all those who dabble in education. The University will be "democratised, the honeycomb will be destroyed," "Mr. Huq will be given an opportunity of going into the question of Mahomedan representation" and may we in all humility ask, will there be a provision for "Proscription" which Sulla of old adopted and carried into such vigorous execution?

The impression made by the spectacle on the people of Bengal was profound. We all agree that the Council is omnipotent, that the Council is omniscient, and we quote here below what the Editors of two leading Journals of Calcutta thought and wrote about the episode.

Capital, 13th July, 1922.

The Hon'ble Mr. P. C. Mitter, Member for Education, asked the Bengal Legislative Council on Tuesday for a Grant of Rs. 2½ lakhs to relieve the financial distress of the Calcutta University. He knew it would be the signal for an onslaught on Sir Asutosh Mookerjea, the Vice-Chancellor, who, to all intents and purposes, is the government of the University, so, in a speech redolent of Antony's funeral oration, he deprecated hasty criticism and hasty action. It was no go; the critics were out for blood and would not be baulked of their prey. Sir Asutosh Mookerjea's unpopularity with the Bengali *literati* is in exact proportion to his towering eminence as the first Indian scholar of the day and his splendid record of service to the cause of higher education in this presidency. The reason of this seeming paradox is pretty well known and need not be re-stated. In the Council yesterday his dread name was hardly mentioned, nevertheless it was plain that the daggers of the conspirators quivered to be imbedded in his flesh. There was loud shouting in the market-place and the tumult "cried on havoc," but, in the end, Antony prevailed. The crowd dispersed to clamour again on the first opportunity against the autocrat " who had deserved nobly of its country, and who had not deserved nobly." The old, old enigma when greatness provokes envy. It was a sorry exhibition.

The Indian Daily News, 13th July, 1922.

After an acrimonious debate, on Tuesday, the Bengal Council approved the grant of Rs. 2½ lakhs to the Calcutta University. Some of the speakers spouted venom and it was clear during the debate that the target of their attack was not the University so much as the Vice-Chancellor. Public memory is proverbially short all over the world or else Sir Asutosh's countrymen would not have so soon forgotten his services to the Calcutta University and been so ready to fling garbage of the gutter at him. His last Convocation speech is a sufficient vindication of his educational policy and clearly sets forth the case for the Post-graduate classes. And if his countrymen had been capable of such a high educational ideal, they would have readily backed him and ungrudgingly paid every farthing for the upkeep of what is undoubtedly the best University in India. However, the most sensible speech in the Council, on Tuesday, was that delivered by Sir Asutosh Chaudhuri. The tug-of-war between the University and the Council has been ostensibly going on in respect of the submission of accounts by the University. That is a matter upon which the Council has been very insistent and although the statute provides that the University possesses absolute autonomy in that respect, the Senate apparently to show that all its transactions have been absolutely *bona fide* has agreed to yield to the demand and submit the accounts to the Council very shortly. Sir Asutosh Chaudhuri very ably rubbed the point in and showed that as the statute now stood the Council had not the power, the Government had not the power to insist on the production of accounts with the minutest details. But, it seems, the

Senate does not mind if the submission of accounts will only allay public clamour. We think the decision of the Senate has been very proper. It won't hurt its prestige but will enhance it. The Minister was in very good form on Tuesday. The fighting attitude of the summer months seems to have completely disappeared and he was sober in the extreme. Apparently, the iconoclastic spirit of the anti-University M. L. C.'s has startled him and hé thought it was best to play an impartial *role.* He appealed to both "the Council and to the University to rise superior to petty personal animosities and to be actuated solely by the dictates of the public good, urging that an *impasse* brought about by personal prejudice and personal differences of opinion on either side would be detrimental to the unfortunate and long-suffering student community of the province." He might have directed his appeal to the Council alone, for the University was quite entitled to stand on its own rights conferred by statute but lest the charge of obstinacy should be brought against it, it was ready to yield and place its accounts before the Council and the Government for close scrutiny. We think the impartial public will give the University credit for its conciliatory attitude. Apparently, the University has yielded in the interests of higher education in the Province—in the interests of the student community—of the sons and grandsons of the very M. L. C.'s who have been trying to clip its wings.

We merely say :

These are thy works, Almighty.
Thine this Universal frame
Thyself how greatest then ?

* * *

One of the resolutions adopted by the Senate on the 30th January, 1914, with regard to Palit Professors was that a Professor should vacate his office upon completion of the sixtieth year of his age, unless the Senate is satisfied that his services should, in the interests of research, be still retained by the University. Sir P. C. Ray has just completed the sixtieth year of his age, and as might have been anticipated, the Senate has unanimously decided that he should be requested to hold the Chair for a term of five years longer. Prof. Brühl eulogised the work of Sir P. C. Ray in the domain of Chemistry, and the Vice-Chancellor added that the founder of the modern school of Chemistry in this Presidency could not be permitted to seek retirement while so much work still remained to be accomplished.

* * * * *

In October last, we had occasion to invite the attention of our readers to the provision made by the late Sir Rashbehary Ghose in his testament for the establishment of Travelling Fellowships. The scheme has matured and at the meeting of the Senate held on Saturday, the 29th July, the first Travelling Fellowship was awarded to Dr. Sisirkumar Mitra, University Lecturer in the Department of Physics, now on study leave in Paris. Dr. Mitra is a distinguished graduate of this University and has published important original papers on the Theory of Light. Dr. Mitra will visit the Universities of Paris, Berlin and Heidelberg according to the following scheme:

University of Paris.

1922 October-December	...	Work on the establishment of Standard Wave-length for Spectroscopic Measurements

University of Berlin.

1923 January-April	...	Study of the application of Electron tubes for physical research at Technische Hechschole.

University of Heidelberg.

1923 April-September	...	Study of the Technique of Positive Ray analysis with Professor Lenard.

* * * * * *

Miss Stella Kramrisch, Doctor of Philosophy of the University of Vienna, has been at the Santiniketan, Bolpur, for some time past. In response to an invitation from the University, she has commenced to deliver a course of six lectures on Indian Art. She has found a large and distinguished audience, and her exposition of the underlying principles of Indian Art has been much appreciated.

We hope to be able to publish her lectures in our next issue; meanwhile we set out here the synopsis:

I

THE EXPRESSIVENESS OF INDIAN ART

I. INDIAN ART ; ITS SIGNIFICANCE IN THE ART OF THE WORLD.

Beauty the universal ideal.

Art, the individual creative realisation.

Types of creation :

- (1) The "primitive" soul.
  - Features of "primitive" expression : "abstract" and chaotic form (peculiar to Northern European, Islamic and *Indian* art).
- (2) Naïve or classical conception.
  - Features: Representation and rationalistic form (peculiar to Greek art and the Renaissance, to Eastern Asia except the Sung—and Buddhist tradition and to *India*).
- (3) Sublimated expression.
  - Features: Metaphysical subject and Geometrical form (peculiar to Egyptian, Byzantine—the whole of Buddhist and *Indian* art).

Simultaneousness of types at any moment of Indian art.

Result: The physiognomy of Indian art.
The nature of Indian art.

II

II. NATURE AND CREATIVENESS

Art : fusion of subject and object, nature and man.

Significant species: landscape painting. No landscape-painting in India.

The Indian "landscape"-art...*continuation* of nature through the medium of the creative mind (neither representation, nor interpretation).

Qualities: Precise information,
"Indian Anatomy";

Transgression of nature and independence of art.
The Indian "plastic," the means of transgression and independence.

Indian "Naturalism."
  Portraiture,
  Gods with multiple arms, etc.
  The Cave Temple.
  Rāg-Māla's.

III. MYTH AND FORM.

Myth, Form and illustration.

The mythic principle of life and form.

The two poles of Indian creative imagination.—Jatakas and curvilinear form. Avatars and comprehensive form.

Intermediate conceptions: Krishna and the Bhanga's.

Siva Nataraja and the circle.

Existence, image and vertical symmetery.
(Buddha, Vishnu, etc).

Destruction and diagonal direction.
(Durga, etc).

Myth and mysticism with regard to creation.

Intercourse of myth and artistic form.

"Continuous representation," the mythic diction of Indian Art.

IV. SPACE.

Distinction between scientific, metaphysical and artistic space.

"Perspective"—intrusion of the first into the last.

Optical and spiritual perspective.

Pictorial significance of objects and the Illusion of appearance.

A Dilemma of the artistic mind and the Indian way out.

Inner relation and outward extension: Spatial formulæ.

The intellectual and the creative conception of space in Indian Art.

Non-existence of creative space. "Horror Vacui."

Intrusion of the space of reality; its effect: Darkness.

The function of darkness.

Pattern and depth.

Dynamic volume replaces space.

V. MOVEMENT OF INDIAN ART.

Rhythm (The inner movement).
Musical and Plastic rhythm.
  The life-movement of Indian art.
    Gesture and rhythm.
    Form and rhythm.
The three dimensions amalgamated by rhythm :
  The rhythm of Indian architecture: Volume and interval.
  The rhythm of sculpture " Plastic."
  The rhythm of Painting: The wave.
Unity of architecture and sculpture, of sculpture and painting.
  Rhythm and subject matter.
  Rhythm and design.
Temperamental varieties of rhythm : Barhut, Sanchi, etc.

VI. MOVEMENT OF INDIAN ART.

Evolution (The Historical movement).
Continuity and variation of the principles recognized—and the Periods of Indian Art.

* * * * *

The University has just acquired the manuscript of an extremely valuable work of Vaisnav Literature, namely, the *Advaita Mangal* of Haricharan Das. Arrangements will shortly be made for the publication of a critical and scholarly edition, which will no doubt be highly appreciated by all persons interested in Vaisnav Philosophy. The existence of the manuscript was traced out and brought to the notice of the Vice-Chancellor by Dr. Abhayakumar Guha who, as we all know, has been a devoted student of Vaisnav Philosophy. We are glad to find that his attainments in that abstruse branch of knowledge have been acknowledged by the Vaisnavas themselves who have conferred upon him a suitable title.

* * * *

The members of the Bengal Legislative Council, no doubt in their anxiety to democratise education, sometime ago adopted a resolution that a Board of Secondary Education should forthwith be created and the University deprived of its authority in the matter of the management of secondary schools and the conduct of the Matriculation Examination. How the new Board will begin its career we shall not anticipate at the present moment, but we may state that if what has been attributed to the Secondary Board at Dacca is true, even in part, the proposal can be regarded only with grave misgivings. But, apart from this, have our Legislators considered what effect their proposal would produce upon the structure of the University? The Senate had the matter under consideration on Saturday the 29th July, when it was decided, on the motion of Mr. Mahendranath Ray,

> "That a letter be addressed to the Government of Bengal requesting that the Senate may be furnished with information on the following points:
>
> (*i*) Whether compensation will be made to the University for loss of income which must result from the creation of a Board of Secondary Education for the exercise of control over secondary schools and the conduct of the Matriculation Examination.
>
> (*ii*) How, when, on what principle and by which Body will the compensation be determined.
>
> (*iii*) Will the payment of the amount assessed as compensation be contingent upon the vote of the Legislative Council from year to year, or will it be made a fixed perpetual grant—if the latter, by what method.
>
> (*iv*) How and in what proportion will the University be represented on the Board of Secondary Education,
>
> and that, pending the receipt of the reply, further consideration of the matter be postponed."

These questions are very pertinent, and they raise concisely and pointedly the matters in issue between the University and the Government. But this will not appeal to people who are engaged on a campaign of destruction against the University and who are determined to achieve what even Lord Curzon had failed to accomplish.

REPORT

OF THE

COMMITTEE

APPOINTED BY THE SENATE

ON THE

13th MARCH 1922

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REPORT

We, the members of the Committee appointed by the Senate on the 13th March, 1922, to draw up a statement on the points arising in connection with the speech delivered by the Minister for Education, Bengal, in the Bengal Legislative Council on the 1st March, 1922, have the honour to submit our report.

Amongst the various points which require to be considered in connection with the speech the foremost place must be assigned to the question of the position of the University in relation to the Government, and we will accordingly examine it in the first place.

CONSTITUTION

The University of Calcutta is a Corporation created by Statute, and its privileges and obligations must be determined by reference to the statutory provisions which will be found set out in Act II of 1857 (the Act of Incorporation) and Act VIII of 1904 (the Indian Universities Act). These enactments have been amended from time to time and, in their amended form, are printed in the volume of Regulations published by the University.

The constitution of the Body Corporate of the University is defined in Section 1 of the Act of Incorporation and Section 4 of the Indian Universities Act. The Body Corporate consists of

(*a*) the Chancellor,
(*b*) the Vice-Chancellor,
(*c*) the Ex-officio Fellows,
(*d*) the Ordinary Fellows,
  (*i*) elected by Registered Graduates,
  (*ii*) elected by the Faculties, and
  (*iii*) nominated by the Chancellor.

These persons constitute the Senate of the University.

Section 8 of the Act of Incorporation which authorises the Chancellor, Vice-Chancellor and Fellows to superintend the affairs of the University is in the following terms :

"*The Chancellor, Vice-Chancellor and Fellows, for the time being, shall have the entire management of and superintendence over the affairs, concerns and property of the said University; and, in all cases unprovided for by this Act, it shall be lawful for the Chancellor, Vice-Chancellor and Fellows to act in such manner as shall appear to them best calculated to promote the purposes intended by the said University.*"

Section 4 of the Act of Incorporation provides that the Governor of Bengal, for the time being, shall be the Chancellor of the University. The Governor General of India was the Chancellor of the University till the amendment of the Act of Incorporation in 1921.

The Vice-Chancellor is, under Section 5 of the Act of Incorporation, nominated by the Local Government of Bengal. The Vice-Chancellor was nominated by the Governor General of India in Council before the amendment of the Act of Incorporation in 1921.

The number of Ex-officio Fellows cannot exceed ten, as laid down in the proviso to Section 5 (2) of the Indian Universities Act. The list of Ex-officio Fellows may be modified by the Government by notification in the Gazette. The expression "the Government" now means the Local Government; (Section 2 (2) (*b*) of the Indian Universities Act). Before the amendment of 1921, the expression meant, in the case of the University of Calcutta, the Governor General in Council.

The list of Ex-officio Fellows at present is as follows :

His Excellency the Governor of Assam.

The Chief Justice of the High Court of Judicature at Fort William in Bengal.

The Lord Bishop of Calcutta and Metropolitan of India.

The Member of the Council of the Governor General in charge of the Department of Education.

The Minister for Local Self-Government, Bengal.

The Minister for Education, Bengal.

The Minister for Agriculture and Industries, Bengal.

The Minister for Education, Assam.

The Director of Public Instruction, Bengal.

The Director of Public Instruction, Assam.

This list, it will be noticed, includes the Member of the Council of the Governor General in charge of the Department of Education, the Minister for Education in Bengal and the Minister for Education in Assam. Consequently, the Minister for Education in Bengal is one of the ten Ex-officio Fellows in the same way as the Member of the Council of the Governor General in charge of the Department of Education and the Minister for Education in Assam.

The position thus is that the entire management of and superintendence over the affairs, concerns and property of the University is vested in the Chancellor, Vice-Chancellor and Fellows, and, it is lawful for them, in all cases unprovided for by Statute, to act in such manner as shall appear to them best calculated to promote the purposes intended by the University. No Fellow, Ex-officio or Ordinary, has any special power or privilege.

The Chancellor has the power to nominate Ordinary Fellows, subject to the restrictions and qualifications mentioned in Sections 6, 9 and 10 of the Indian Universities Act; he may, under Section 11, declare vacant the office of an Ordinary Fellow who has not attended a meeting of the Senate during the period of one year. The Chancellor may also nominate any person possessing the prescribed qualification to be an Honorary Fellow for life under Section 13 (2). His assent is, under Section 17, necessary when an Honorary Degree is proposed to be conferred by the Senate. Confirmation by him is also necessary when it is proposed under Section 18 to cancel a Degree or Diploma.

The consent of the Vice-Chancellor is necessary under Section 17 when an Honorary Degree is proposed to be conferred.

Under Section 15, the Executive Government of the University is vested in the Syndicate; the Vice-Chancellor is Ex-officio the Chairman of the Syndicate. The Vice-Chancellor has emergency powers under Section 6 of Chapter IV of the Regulations.

We now pass on to the points of contact between the Government and the University, so far as they are mentioned in the Act of Incorporation and the Indian Universities Act.

Under the second paragraph of Section 8 of the Act of Incorporation, as it originally stood, the Chancellor, Vice-Chancellor and Fellows were authorised to make and alter from time to time bye-laws and regulations touching all matters whatever regarding the University. These bye-laws and regulations, however, could be operative only after they had received the approval of the Governor General of India in Council. This provision has been replaced by Section 25 of the Indian Universities Act, which empowers the Senate to make regulations from time to time with the sanction of the Government. As already pointed out, till the amendment of 1921, the expression "the Government" meant the Governor General in Council, and it now means the Local Government.

Another matter which brings the University into touch with the Government is the affiliation and disaffiliation of Colleges. The provisions on this subject are embodied in Section 21, 22 and 24 of the Indian Universities Act. The final order on all applications for affiliation and disaffiliation, after they have been considered by the Syndicate and the Senate, can be passed only by the Government to whom all the papers are required to be submitted by the Registrar.

Under Section 7 of the Act of Incorporation, the Government may cancel the appointment of any person as Fellow.

It is plain that, except upon questions of change of Regulations, and the affiliation and disaffiliation of Colleges, and a further matter presently to be mentioned, the Senate, composed of the Chancellor, Vice-Chancellor and Fellows, is constituted a self-contained Corporation and is vested with the entire management of and superintendence over the affairs, concerns and property of the University, and no interference on the part of the Government, much less of any member thereof, is permissible. In this connection, it may be pointed out that the Senate is under no legal obligation to furnish reports, returns or other information. Reference may be made to Section 23 of the Indian Universities Act which makes it obligatory upon every affiliated College to furnish such reports, returns and other information as the Syndicate may require to enable it to judge of the efficiency of the College. No power, however, is reserved to the Government to call for reports, returns and other information from the Senate. The reason for this will be obvious to all persons familiar with University administration. There are many matters connected therewith, specially with the conduct of examinations, which no University should be called upon to disclose. We do not suggest, however, that because the University is not under a legal obligation to furnish reports, returns and other information, it should necessarily decline to do so. Much may be and is gained by publicity in suitable cases, but what should be distinctly understood is that such information cannot be demanded as a matter of right.

The point which has been reserved above for consideration, arises on Section 15 of the Act of Incorporation. The section, as enacted in 1857, was in the following terms :

"The said Chancellor, Vice-Chancellor and Fellows shall have power to charge such reasonable fees for the degrees to be conferred by them and upon admission into the said University and for continuance therein, as they, with the approbation of the Governor General of India in Council, shall, from time to time, see fit to impose. Such fees shall be carried to one General Fee Fund for the payment of expenses of the said University, under the direction and regulations of the Governor General of India in Council, to whom the accounts of income and expenditure of the said University shall, once in every year, be submitted for such examination and audit as the said Governor General of India in Council may direct."

The section was amended in 1921, when the expression "Governor General of India in Council" was replaced by the expression "Local Government of Bengal." Before we consider the extent of the power conferred on the Government by this section, it may be stated that it does not authorise what may be called "inspection." Reference may again be made to Section 23 (2) of the Indian Universities Act which authorises the Syndicate to inspect every affiliated College from time to time. No such power is reserved to the Government in respect of the University either under the Act of Incorporation or the Indian Universities Act. This has been expressly recognised by the Government of India, as will appear from the following question and answer in the Legislative Assembly:

"QUESTION 263. *Mr. J. Chaudhury*: (*e*) Is the Government of India aware that the University of Calcutta is at present on the verge of bankruptcy, and do Government propose to appoint a Committee to look into its financial position and come to its rescue, pending its reconstitution on a sound educational and financial basis?"

ANSWER. *Mr. H. Sharp*: (*e*). Government have been informed that the financial position of the University of Calcutta is precarious. They have no intention of appointing a Committee such as that contemplated by the Honourable Member, nor does the existing law provide for the appointment of such a Committee." (*Proceedings of the Legislative Assembly, dated the 22nd February, 1921.*)

Let us now turn to the language of Section 15, which, as we have stated, has been in operation since 1857. The fees mentioned in the first sentence of the section have to be carried into one General Fee Fund for the payment of expenses of the University under the direction and regulations of the Government. Apart from the question of the meaning of the expression "direction and regulations," it is obvious that such direction and regulations can apply only to the classes of fees specified in the first sentence, namely, (1) fees for degrees conferred by the Senate, (2) fees for admission into the University, (3) fees for continuance in the University. Under (1) comes the fee of Rs. 5 charged by the University when a degree is conferred *in absentia*; under (2) comes what is known as the Registration fee of Rs. 2; under (3) comes the fee payable by Registered Graduates. The Government is not authorised to issue "direction and regulations" in respect of other classes of fees which the University may charge or other kinds of income which the University may possess. Further, if "direction and regulations" are issued by the Government, they cannot conflict with the regulations otherwise made and already sanctioned by the Government, becoming thereby binding upon all members of the University. Section 15 again contemplates that the accounts of income and expenditure of the University shall, once in every year, be submitted for such examination and audit as the Government may direct. Such examination and audit, however, are contemplated to take place only once in every year, and, as a matter of fact, the examination and audit have been held annually ever since the establishment of the University. There is thus no foundation for the claim which has sometimes been put forward, that the University is subject to general financial control by the Government or is liable to have its academic activities regulated by pressure of such control.

We have hitherto confined our attention to the provisions of the Act of Incorporation and the Indian Universities Act. There are, however, provisions in the Regulations which also bring the University into contact with the Government. Section 8 of Chapter VIII of the Regulations makes the appointment of the Inspector of Colleges subject to the approval of the Government. Section 1 of Chapter IX enables the Senate to found a Professorship, which is to be maintained out of the funds of the University, only with the previous consent of the Government. Section 10 of Chapter IX, again, provides that no University

Professor shall be appointed without the sanction of the Government. Section 8 of Chapter X provides that no University Reader shall be appointed without the sanction of the Government. Sections 12 and 13 of Chapter XI as originally framed provided that no University Lecturer or Junior University Lecturer should be appointed without the sanction of the Governor General in Council; these sections have now been replaced by Section 32 of Chapter XI in its new form, which provides as follows:

"No person whose salary is, or is to be, paid from funds supplied by the Government, shall be appointed or re-appointed University Lecturer, without the previous sanction of the Government. The names of all other persons appointed or re-appointed Lecturers, shall be notified to the Local Government within one week from the date of the decision of the Senate. If, within six weeks from the receipt of such notification, the Government intimate to the University that a specified appointment is objectionable onother than academic grounds, such decision shall take effect and the appointment shall stand cancelled."

It will be recalled that these Regulations, as promulgated in 1906, were made by the Government of India in the exercise of its extraordinary power under Section 26 (2) of the Indian Universities Act. A question has been raised—but never decided—whether such provisions in the Regulations as vest in the Government a power of control in excess of what is conferred by the Act of Incorporation or by the Indian Universities Act, are not really *ultra vires.* Section 8 of the Act of Incorporation, set out above, authorises the Chancellor, Vice-Chancellor and Fellows to act in such manner as shall appear to them best calculated to promote the purposes intended by the University, in all cases unprovided for by the Act. It has been urged that the insertion of restrictive provisions in the Regulations constitutes an encroachment upon the statutory powers vested in the Senate by Section 8. We need not on the present occasion express a final opinion on this controversy. We do not feel called upon to do so, but we must add that interference with the administration of the University in a manner not authorised by law should not be tolerated by the Senate. As the law now stands, we certainly cannot recommend to the Senate the acceptance of any position contrary to this view.

It is worthy of note that wherever the University is brought into contact with the Government, the expression formerly used was "Governor General in Council" and now used is "Government" or "Local Government." Neither the Member of the Executive Council of the Governor General in charge of Education nor the Minister in charge of Education in Bengal is mentioned or can be recognised as such. The intention apparently has been that the Chancellor, who is the Head of the University, should, in his capacity as the Head of the Government, have a direct voice in the final decision of such University matters as are required by Statute to be taken up to the Government. Expressions recently used by some persons show that the true position of the Governor (Chancellor) in this respect is apt to be overlooked or ignored; and they appear to us to be based upon an assumption not founded on the statute as it stands, which in our view is quite unambiguous and clear.

PROCEDURE

The next important point which deserves consideration is one of the procedure to be adopted when the Government deals with a University matter which is within its jurisdiction. It is obviously undesirable that a person in the position of a responsible Minister should give public expression to opinions upon University questions which the University authorities themselves had not been previously given an opportunity to examine and consider. The contrary procedure is bound to lead to unhappy results. A Minister cannot always be expected to possess an intimate first-hand acquaintance with the various aspects of the manifold and complex problems which must arise in a great and progressive University. If the Minister were to form his opinion on such materials as might be available to him, he might sometimes come to erroneous conclusions ; and the public expression of opinions so formed might lead to complications which all persons interested in the welfare of the University should be anxious to avoid. That this apprehension is not altogether unfounded, may be illustrated from some of the observations contained in the Minister's speech.

COLLEGE OF SCIENCE AND TECHNOLOGY

We shall now take up the remarks made by the Minister with reference to the expenditure incurred by the University on the College of Science and Technology. These are mainly based on figures for the five years from 1916-17 to 1920-21, and we find the hope expressed that the University "would revise their way of dealing with the science side." In order to obtain the true perspective of the situation, it is necessary, however, to take into account the expenditure incurred by the University in respect of the College of Science since its commencement.

On the 16th March, 1912, Lord Hardinge in his Convocation Address announced that the Goevrnment of India had decided to make an annual grant of Rs. 65,000 for the appointment of University Professors and Lecturers in special subjects and for the encouragement in other ways of higher studies and research. On the 29th March, 1912, the Government of India addressed a letter to the Government of Bengal, intimating, for the information of the University, that a recurring grant of Rs. 65,000 had been made and that the object of the grant was to enable the University to make a definite step forward towards the realisation of the idea of a Teaching University for higher work as also to improve the inspection of Colleges. The Syndicate intimated to the Government of Bengal that they were unanimously opposed to the appointment of an additional Inspector of Colleges, and they urged, instead, the creation of a Professorship of Chemistry in addition to the two other chairs of Mathematics and Philosophy which had been previously suggested. The Government of Bengal, on the 31st July, 1912, strongly supported this proposal and expressed their concurrence with the opinion of the Syndicate that no provision need be made for the appointment of an additional Inspector of Colleges. On the 15th June, 1912, Mr. Taraknath Palit executed his first Trust Deed in favour of the University, transferring money and land worth about eight lakhs of rupees for the establishment of two Professorships, one of Chemistry and the other of Physics, "as a first step towards the foundation of a University College of Science and Technology." The Syndicate accordingly modified their proposal that Rs. 12,000 out of the Imperial Grant should be applied for the foundation of a Chair of Chemistry and recommended that the sum should be devoted to the maintenance of the Laboratory of the proposed University College of Science. On the 18th September, 1912, the Government of India sanctioned this proposal. On the 8th October, 1912, Mr. Palit made a further gift of seven lakhs of rupees. On the 30th December, 1912, the Syndicate addressed a letter to the Government of India for liberal financial assistance for the development of University work in general and of the University College of Science in particular. The second paragraph of this letter, which is printed in full in Appendix I, was as follows:

"The Government of India are no doubt aware that in the course of the last six months, Mr. T. Palit, Bar-at-Law, has made over to the University a princely gift of money and property of the aggregate value of nearly fifteen lakhs of rupees for the purpose of founding a College of Science and for the general improvement of scientific and technical education. Under the terms of the deeds of gift, the University is bound to maintain, from the income of the endowment, a Chair of Physics and a Chair of Chemistry and to institute a scholarship to be awarded to a distinguished graduate for the study of Science in a foreign country; the University is also bound to establish a laboratory for advanced teaching and research and to contribute towards this object at least two and a half lakhs of rupees out of its own funds. But this sum is quite inadequate for the establishment of a laboratory of the kind contemplated. The Vice-Chancellor and the Syndicate are anxious that the fullest advantage should be taken of this unique opportunity to establish a residential College of Science in Calcutta, and it appears to them that if the necessary funds are available, the object can be speedily accomplished without any difficulty. The properties vested in the University by Mr. Palit include, among others, two fine plots of land, one of 12 bighas and the other of 25 bighas in area. On the bigger plot, there are two splendid three-storied houses, recently built, which are admirably suited to accommodate 200 students. If, therefore, adequate funds were forthcoming to erect and equip the requisite laboratories and Professors' quarters on this plot, a Residential College could be set up in working order in the course of a year. The estimated cost of the project amounts to fifteen lakhs of rupees, and the Vice-Chancellor and the Syndicate do not hesitate to ask the Government of India for a grant to the University of this sum. The gift of Mr. Palit is absolutely unique in the history of University education in this country, and they feel sure that the Government of India will be glad to supplement it by at least an equal amount to enable the University to carry out the scheme in its entirety, specially in view of the fact that the University has already agreed to contribute two and a half lakhs out of its own very limited savings. I am desired to add that a sympathetic and generous attitude on the part of the Government of India towards the object which Mr. Palit had at heart, cannot fail greatly to influence public sentiment and may not improbably induce other wealthy gentlemen to found similar endowments for the encouragement of higher teaching."

On the 14th January, 1913, the following reply was received:

"The Government of India are not yet aware what grants, if any, they will be able to assign for education during the ensuing financial year. But I am to say that the requests of the Calcutta University will receive consideration in conjunction with the claims of other Universities and other branches of education."

On the 8th August, 1913, Dr. Rashbehary Ghose offered to place at the disposal of the University a sum of ten lakhs of rupees in furtherance of the University College of Science and for the promotion of scientific and technical education by the establishment of four Professorships of Applied Mathematics, Physics, Chemistry and Botany with special reference to Agriculture. The Syndicate, encouraged by this munificent gift, again addressed a letter to the Government of India on the 4th October, 1913, and pressed for a substantial grant in aid of the University College of Science. The second paragraph of this letter, which is printed in full in Appendix II, was as follows:

"In our letter, dated the 30th December, 1912, the first place was assigned to the scheme for the establishment of a University College of Science for the promotion of higher teaching in different branches of Physical and Natural Science. The Syndicate pointed out that in furtherance of the object, Sir Taraknath Palit had made a gift of money and land to the extent of 15 lakhs of rupees and that the University had undertaken to supplement this unique gift by a contribution of two and a half lakhs from its limited Reserve Fund. The Syndicate entertained the hope that, under these circumstances, the Government of India might suitably supplement and thereby accord recognition to this princely gift, but they were disappointed to find that money was not available for this purpose. Since then, Dr. Rashbehary Ghose has made a gift of 10 lakhs of rupees for the foundation of Professorships and Studentships in connection with the proposed University College of Science. The Syndicate venture to urge upon the Government of India that a claim has now been fully established for a generous contribution from the State in furtherance of the University College of Science. They further desire me to point out that the foundation of a University College of Science for Post-Graduate Studies and Research is one of the foremost needs of the University. There is only one College, namely, the Presidency College, which is affiliated in Physics and Chemistry up to the standard of the M.A. and M.Sc. Examinations, but it must be noted that the

Presidency College, inspite of its new laboratories, has very limited accommodation for Post-Graduate students and is not able to take in more than 10 students in Chemistry and 18 students in Physics every year. Apart, therefore, from the obvious importance of increased facilities for the scientific training of qualified students in this country, it is plain that there does not exist in this University adequate provision for the training of the numerous lecturers and demonstrators required for the efficient management of the Colleges affiliated in scientific subjects. In our letter of the 30th December, 1912, it was stated that the estimated cost of the project for the establishment of a University College of Science was 15 lakhs of rupees; the Syndicate have carefully reconsidered the matter and have come to the conclusion that a smaller sum would not be sufficient to secure that efficiency for the institution, which must for obvious reasons, be its principal characteristic. The laboratory building, of which the plans are ready, will cost at least five lakhs of rupees: the hostel which is proposed to be attached to it, will cost not less than two lakhs of rupees; the equipment will, on the most moderate estimate, cost five lakhs of rupees; a suitable scientific library cannot be created for less than two lakhs of rupees, if complete sets of important periodicals and publications of learned societies have to be brought together, while at least one lakh will be required for additional land. It is not suggested that the whole of this money, if available, may be utilised in the course of twelve months, but it is eminently desirable that an idea should be formed of the minimum requirements of the entire scheme which it may take two or possibly three years to complete."

On the 27th November, 1913, the Government of India replied that the Imperial funds available for education that year had already been allotted. On the 4th December, 1913, the University pointed out that the Syndicate had no intention to ask for a grant out of the funds available during the then current financial year; but that their object was to place before the Government, as early as October, a statement of their pressing needs so as to enable the

Government to take it into consideration when framing its budget estimates for the following year. On the 23rd December, 1913, the Government of India replied that when funds were available, the request of the University for further grants for higher teaching would be considered in conjunction with other demands.

Although financial assistance from the Government of India was thus not forthcoming, the University authorities did not feel quite discouraged, in as much as hopes had been held out that their request "for further grants for higher teaching would be considered." The scheme for the foundation of a University College of Science could not be abandoned, as the acceptance of the generous gifts of Sir Taraknath Palit and Sir Rashbehary Ghose had placed the University under an obligation to provide for laboratory, workshop and other equipments. The foundation-stone of the building designed for the University College of Science was accordingly laid on the 27th March, 1914, and the University proceeded to meet the cost of erection from the Reserve Fund, formed out of the surplus of examination fees realised from candidates of all grades in different stations of life from every corner of the Province. Unforeseen difficulties, however, arose. The outbreak of the Great War led to a sudden and phenomenal depreciation of the Government securities in which the Reserve Fund had been invested. Accordingly, on the 1st December, 1914, the Syndicate applied to the Government for a temporary loan against these securities, as their sale at the prices then current would entail heavy loss upon the University. On the 16th March, 1915, the application was refused; the result was that the securities were sold in the open market at a loss of nearly forty thousand rupees. We cannot overlook that in their letter, for the first time, the Government stated that they felt themselves unable to consider this or any other request regarding these matters, unless they received a clear statement of the general policy of the University in this respect and of the proposed College of Science in particular. It is unnecessary to set out here the correspondence which thereupon ensued between the University and the Government of India; the relevant documents have already been printed and will be found in the Appendix to the Minutes of the Senate dated the 3rd January, 1920. It is sufficient for our present purpose to state that the ultimate result of a protracted correspondence was that on the 9th August, 1917, the Government of India sent the following intimation to the University:

"In reply I am to say that the Government of India propose to defer consideration of the question of granting financial assistance in this connection to the University, pending receipt of the recommendations of the proposed Calcutta University Commission."

Notwithstanding this regrettable attitude of the Government of India, the University steadily proceeded with the work of the College of Science and Technology. The adoption of this course is fully justified by an event which followed. On the 22nd December, 1919, Sir Rashbehary Ghose offered to place at the disposal of the University three and a half per cent. Government securities of the nominal value of Rs. 11,43,000, which would produce an annual income of Rs. 40,005, to be applied exclusively for purposes of technological instruction and research, by the establishment of two new University Professorships of Applied Chemistry and Applied Physics and four research studentships.

The amount which has been spent on the University College of Science during the last ten years may now be set out in the form of a tabular statement under the principal heads of expenditure:

UNIVERSITY COLLEGE OF SCIENCE.

Year	Palit Professors, Asst. Professors, and Assistants.	Ghose Professors, Demonstrators, and Draughtsmen.	Palit Research Scholars.	Ghose Research Scholars.	Professors, Lecturers, Laboratory Assistants, and Menials.	Books and furniture.	Physics Department.	Chemistry Department.	Applied Mathematics Department.	Botany Department.	Zoology Department.	Experimental Psychology Department.	Bio-Chemistry Department.	Workshop.	Gas and Electricity.	Buildings.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1912-13	...	...	...	...	1,977	...	...	...	...	...	...	...	...	...	...	...	1,977
1913-14	...	2,829	...	...	3,600	567	...	11,130	...	...	...	...	...	...	...	29,135	47,261
1914-15	...	22,080	...	1,575	3,600	...	...	1,575	...	...	...	...	...	...	...	2,32,621	2,61,451
1915-16	...	25,200	5,525	3,675	1,986	...	...	23,030	...	...	...	...	...	...	...	34,201	93,617
1916-17	13,573	25,200	11,750	6,600	9,844	6,995	23,375	11,261	10	...	...	3,041	2,988	...	968	33,966	1,49,571
1917-18	28,106	25,200	4,525	5,475	39,590	2,293	51,375	47,016	10	23,374	6,000	3,639	1,366	13,352	1,818	52,518	3,05,657
1918-19	29,917	24,074	4,791	5,591	81,366	8,303	12,863	23,420	156	30,500	12,132	1,463	11	665	2,275	11,263	2,49,290
1919-20	32,940	24,000	5,725	4,836	71,012	12,235	18,910	14,688	62	9,018	16,153	2,161	2,532	121	2,389	2,836	2,19,618
1920-21	34,947	41,658	5,425	4,875	1,00,460	8,472	17,207	26,171	1,384	14,678	6,845	4,284	1,245	5,045	3,527	4,400	2,80,623
1921-22	37,921	44,663	3,950	7,682	86,083	4,597	6,267	21,926	96	21,149	1,312	10,580	52	1,438	3,971	1,403	2,53,090
TOTAL	1,77,404	2,34,904	41,691	40,309	4,00,018	43,462	1,29,997	1,80,217	1,718	98,719	42,442	25,168	8,194	20,621	14,948	4,02,343	18,62,155

The above statement shows that the total expenditure on the University College of Science and Technology up to 31st March, 1922, has been Rs. 18,13,959. This sum has been contributed as follows :

		Rs.
1.	Contribution from the annual Government of India Grant of Rs. 65,000 ...	... 1,20,000
2.	Contribution from Sir Taraknath Palit Fund ...	... 1,87,306
3.	Contribution from Sir Rashbehary Ghose Fund	... 3,51,744
4.	Tuition fees from students	... 65,000
5.	Contribution from the Fee Fund of the University	... 9,89,909
	TOTAL Rs.	... 18,13,959

What we desire to emphasise is that while the University has contributed from its Fee Fund nearly ten lacs of rupees to supplement the tuition fees and the income of the Palit and Ghose funds, only one lac and twenty thousand rupees have been contributed by the Government of India in ten years from the public funds. There is no room for controversy as to the fact that the financial embarrassment of the University is attributable very largely to the expenditure on the College of Science. The position would have been entirely different if the Government of India had, even in some measure, fulfilled its obligation to the cause of development of higher studies by rendering liberal financial assistance to the University in recognition of the unparalleled gifts of Sir Taraknath Palit and Sir Rashbehary Ghose. To select the figures for recent years and to confine our attention to them alone, cannot but create a misleading impression as to the part which has been played by the University and the Government respectively in the matter of the establishment of a University College of Science and Technology for advanced instruction and research.

At this point it is our duty to draw attention to events which happened during the last year. On the 5th February, 1921, the Registrar, under the instruction of the then Vice-Chancellor (approved by the Syndicate on the 11th February, 1921) addressed the following letter to the Government of Bengal, asking for financial assistance towards the development of higher teaching in the University, specially technological and agricultural instruction:

"I am directed by the Vice-Chancellor and Syndicate to request you to place before the Hon'ble the Minister in charge of Education this application for financial assistance for the development of teaching work in accordance with the recommendations of the Calcutta University Commission.

Paragraph 54 of Chapter LI of the Report of the Commission (Vol. V, pp. 282-83) is in these terms :

"The post-graduate scheme described in Chapter XV is carried on at a cost of more than 5 lakhs of rupees, of which Rs. 1,25,000 is derived from lecture fees. The Government of India has contributed towards the cost, first, by founding three chairs and two readerships at an annual cost of Rs. 40,000; and secondly, by a grant of Rs. 15,000 for the post-graduate classes in general. The balance, more than half of the total, is taken from the general funds of the University, which are, in fact, derived almost wholly from the profits on examinations. Fees at the Matriculation, Intermediate and B. A. Examinations have been increased in order to meet these charges. The 138 full-time University Lecturers who provide the bulk of the instruction are paid salaries, varying in amount, which average Rs. 225 per mensem or £180 per annum. The funds do not permit these salaries to be increased, nor is any superannuation scheme provided; it is, consequently, difficult to retain the services of some of the abler teachers. It would demand an additional expenditure of about 1¼ lakhs to increase the average salary to Rs. 300, which is not excessive for this grade of work, seeing that we have suggested Rs. 200 as the average for those of the College Teachers who are not Heads of Departments."

The recommendation of the Commission has received additional strength from recent events. It has been brought to the notice of the Vice-Chancellor that appointments in the Dacca University have been offered to members of th Calcutta University staff on much higher salaries than the Calcutta University has found it hitherto possible to pay them. To take one illustration, a member of the Post-Graduate staff in Philosophy, who is in receipt of a salary of Rs. 300, has been offered an appointment in the Dacca University on a minimum salary of Rs. 500 with periodical increments. The Vice-Chancellor and Syndicate are not able to appreciate the justification for placing public funds at the disposal of the Dacca University authorities, with the inevitable result that they are enabled to take away members of the Post-Graduate staff by offer of higher salaries. If public funds are available for development of higher teaching in Bengal, the Calcutta University is manifestly entitled to a fair share thereof. I am, accordingly, directed to request that a grant of one and a quarter lakhs be made for salaries of the Post-Graduate staff during the session 1921-22, as recommended by the Commission.

I am, further, directed to request that a capital grant of Rupees Ten Lakhs may be made for extension of Technological studies, as recommended by the Commission in Paragraph 75 of Chapter LI of their Report. The Government of Bengal are, no doubt, aware of the organisation which exists in the University College of Science and Technology for teaching in Science, Pure and Applied. The College of Science owes its existence in the main to the munificence of the late Sir Taraknath Palit and the Hon'ble Sir Rashbehary Ghose. The gift made by the former (money and land) is worth 15 lakhs of rupees; the endowment created by the latter exceeds 20 lakhs of rupees. The income of the two endowments has to be applied principally in the maintenance of eight Chairs and sixteen Research Students. The Chairs are now held by scholars of the highest academic distinction:

Palit Professor of Chemistry.	Sir P. C. Ray, Kt., Ph.D., D.Sc., C.I.E., F.C.S.
Palit Professor of Physics.	Mr. C, V. Raman, MA..
Ghose Professor of Applied Mathematics.	Dr. S. K. Banerjee, D.Sc.
Ghose Professor of Chemistry	Dr. P, C. Mitter, M.A., Ph.D. (Berlin).
Ghose Professor of Physics	Dr. D. M. Bose, M.A., B,Sc. Ph.D. (Berlin).
Ghose Professor of Agricultural Botany.	Dr. S. P. Agharkar, M.A., Ph.D. (Berlin).
Ghose Professor of Applied Physics.	Dr. P. N. Ghosh, M.A., Ph.D.
Ghose Professor of Applied Chemistry.	Dr. H. K. Sen, M.A., D.Sc. (London).

The balance of the income of these endowments, which is left after payment of the salaries of these Professors and of scholarships to the research students, is quite inadequate for equipment of the respective Laboratories. The University has, consequently, found it necessary to devote a large portion of its current income from year to year to the construction of the Laboratory buildings, and the equipment of the Laboratories. Some idea of the sums which have been spent by the University will be gained from the following statement:

	Rs.
Cost of erection of Palit Laboratory Building at 92, Upper Circular Road ...	3,89,427
Equipment for the Laboratory (Physical, Chemical and Biological) ...	3,34,382
TOTAL	7,23,809

Besides this, the University maintains two Chairs, one for Botany and the other, for Zoology. The former is held by Dr. P. Brühl, D.Sc., who is on the grade of Rs. 800-50-1,000, and the latter, by Mr. S. Maulik, M.A. (Cantab), who is on the grade of Rs. 600-50-800. To carry on the work in each Department, the University has found it necessary to employ a number of Assistant Professors, Lecturers and Demonstrators, whose aggregate salary amounts to Rs. 3,525 per month. Notwithstanding all these arrangements, the University has found it impossible to undertake instruction in Technology and Applied Science on anything approaching an adequate scale. This is a matter for deep regret, specially in view of the fact that the last gift of the Hon'ble Sir Rashbehary Ghose was made expressly for development of technological teaching, and the Chair of Botany first created by him was expressly intended for improvement of agricultural instruction. The authorities of the Science College have had ready for some time past a carefully prepared programme of work for the development of technological instruction, and its outline may be set forth here for information of Government :

	Rs.
(A) Applied Chemistry	4,65,000
(B) Applied Physics	2,10,000
(C) Applied Botany (including Agriculture)	2,00,000
(D) Library of the Science College ..	1,25,000
TOTAL	10,00,000

In Chemistry (A), the most essential need is an adequate workshop : this, it is estimated, will cost Rs. 2,25,000, namely, Rs. 75,000 for building and Rs. 1,50,000 for appliances. It is proposed to undertake instruction in Chemistry of Leather and Chemistry of Dyes. Besides this, it is proposed to have arrangements for practical instruction in the manufacture of some of the following :

Sulphuric Acid, Glass, Paper and Pulp, Lime, Mortar and Cement, Sugar, Soap, Candle and Glycerine, Paints and Pigments, Oils. Apart from these, factory appliances, like disintegrators, centrifugals, filter-presses, hydraulic presses, vacuum pans, etc., would be indispensable, These would require a grant of 2 lakhs of rupees to enable the College authorities to make a good beginning. Finally, at least Rs. 40,000 would be needed for even a small laboratory for technical analysis. This brings up the figure for the Department of Chemistry to Rs. 4,65,000.

In the Department of Applied Physics (B), it is intended to undertake work in Applied Electricity, in the testing and standardisation of instruments, in Applied Optics (including Illumination Engineering), in Pyrometry and in Applied Thermo-Dynamics (including a study of the efficiency of different types of Heat Engines). An estimate of Rs. 2,'0,000 is manifestly a very modest demand for so important a work.

In the Department of Botany (C), it is intended to undertake instruction in Agriculture. The most urgent need is an experimental farm, which need not be situated in the immediate neighbourhood of Calcutta. A site in some place easily accessible by rail will meet the needs of our students. The acquisition of land and the construction and equipment of a farm will cost at least a lakh of rupees. Another one lakh will enable the University Professors to complete the arrangements which have already been begun in Palit House at 35, Balligunj Circular Road.

The remaining item (D) is the Library of the University College of Science. For purposes of instruction on the most modern lines in such subjects as Chemistry, Physics and Botany, it is absolutely essential to acquire the chief journals and standard works of reference. A sum of Rupees One Lakh and Twenty-five Thousand will enable the University to procure not all, but many, of the most pressing requisites.

It is obvious that a recurring grant would be needed for the purpose of carrying out efficiently the work of technological and agricultural instruction from year to year. The Vice-Chancellor and Syndicate do not, however, press for a recurring grant during the ensuing session, and they will be content to utilise the capital grant, which may be placed at their disposal, with the assistance of their present staff.

The Vice-Chancellor and Syndicate, accordingly, request that provision may be made for a capital grant of Rupees Ten Lakhs for the development of technological studies in connection with the University College of Science, in addition to the grant of Rupees One Lakh and Twenty-five Thousand for the salary of Post-Graduate Teachers."

To this letter the Government of Bengal replied on the 15th November, 1921, in the following terms :

"I am directed to refer to your letter, No. G-345, dated the 5th February, 1921, in which you ask for a grant of Rs. 1,25,000 for improvement of the Post-Graduate Department of the Calcutta University and a capital grant of Rs. 10,00,000 for extension of technological studies. Both these proposals are based on the recommendations of the Calcutta University Commission's Report.

The present financial condition of the Government of Bengal is well-known to the Calcutta University. The University is, no doubt, aware that representations were made by this Government to the Government of India about the need of improving the finances of the Province. It was not possible to reply to your letter until the Government of India had considered these representations, and the relief since granted by the Government of India is so inadequate that unless fresh sources of revenue are made available, very drastic retrenchments will have to be undertaken in all Departments. The University will, therefore, realise that there is no immediate prospect of carrying into effect the recommendations of the Sadler Commission. The Government of Bengal, however, propose shortly to address the Government of India, protesting against the inadequacy of financial relief, as, among other consequences, inevitably leading to the postponement of University reforms on the lines of the Sadler Commission's report. The Government of Bengal in the Ministry of Education regret to say that, as in their present financial position, reforms on the lines of the Sadler Commission's Report cannot possibly be contemplated, they are unable to grant either of the requests contained in the letter under reply. Government further desire to take this opportunity of suggesting that in the present critical financial position both of the University and of the Government, the University may find it desirable not to try to expand its activities till fresh sources of revenue are made available to it.

I am to add that, although the Calcutta University has made no representation to Government about the necessity of relief for its immediate needs, the attention of Government has been drawn to its critical and embarrassing financial position from the published proceedings and reports. Under certain conditions and subject to certain contingencies the Government of Bengal are willing to help the Calcutta University to extricate itself from its more immediate financial embarrassments and any representation for assistance on a modest scale which the Calcutta University desires to place before the Government will be sympathetically considered.

Finally, I am to say that, although for the reason stated above, no formal reply could be earlier given to the letter under reply, the provisional views of Government were verbally communicated to responsible authorities of the University."

This letter, though disappointing in the immediate result, need not be regarded as discouraging in tone. It may be pointed out, however, that there was no ground for the apprehension that the University might try to expand its activities before fresh sources of revenue had become available. The University had asked for assistance only to carry out in a suitable manner the great work of advanced instruction and research in Science and Technology, which it had been privileged to initiate by reason of the munificence of Sir Taraknath Palit and Sir Rashbehary Ghose, long before the appointment of the University Commission and the formulation of their scheme of University reconstruction. But it is gratifying to record that while the Government of

India had failed to assist the University in a befitting manner and the Government of Bengal regretted its inability to promote the work of the University in these directions, yet another splendid donation was received by the University. The gift made by the late Kumar Guruprasad Singh of Khaira amounted to five and a half lacs of rupees and the University was able last year to devote three of the five chairs, maintained out of that endowment, to Physics, Chemistry and Agriculture—each of these a subject within the scope of the activities of the College of Science and Technology.

The substance of the matter is that while the University has persistently striven, during the last ten years, often under extremely adverse circumstances, to maintain a College of Science and Technology, the Government of India and the Government of Bengal have not yet helped the institution in a manner worthy of its great founders. In such circumstances, criticism not accompanied by practical manifestation of good-will and sympathy, is not likely to facilitate the performance of a difficult task.

POST-GRADUATE TEACHING IN ARTS

We next pass on to a criticism which has been directed against the apparently larger expenditure on Post-Graduate Teaching in Arts in comparison with that incurred on the Science side. In our opinion, this is based upon a superficial comparison of the sums spent on each side without making any reference to the number of students and the variety of subjects included within the scope of each department. The following tables set out the number of students in each side in the Fifth and Sixth Year Classes during the years 1920-21 and 1921-22.

POST-GRADUATE

ARTS.

	1920-21.			1921-22.		
	5th-year	6th-year	Total	5th-year	6th-year	Total
English ...	313	228	541	240	158	398
Sanskrit ...	25	22	47	12	16	28
Pali ...	5	3	8	2	4	6
Arabic ...	5	4	9	6	3	9
Persian .	5	4	9	3	4	7
Comparative Philology ...	4	1	5	2	1	3
Indian Vernaculars ...	32	20	52	16	16	32
Philosophy ...	85	62	147	53	43	96
Experimental Psychology	11	4	15	3	2	5
History ...	109	54	163	57	59	116
Anthropology ...	20	...	20	19	9	28
Economics ...	104	68	172	51	63	114
Pure Mathematics ...	71	37	108	49	35	84
Ancient Indian History ...	26	21	47	18	17	35
Commerce ...	...	...	...	110	...	110
	815	528	1343	641	430	1071

POST-GRADUATE

SCIENCE.

	1920-21.			1921-22.		
	5th-year	6th-year	Total	5th-year	6th-year	Total
Applied Mathematics ...	27	22	49	17	14	31
Physics ...	33	26	59	30	18	48
Chemistry ...	27	26	53	28	20	48
Botany ...	4	1	5	6	4	10
Physiology ...	6	6	12	7	6	13
Geology ...	6	3	9	6	6	12
Zoology ...	9	1	10	5	2	7
Applied Chemistry ...	12	2	14	16	10	26
	124	87	211	115	80	195

It will be observed that whereas in 1920-21, there were 1,343 students in the department of Arts, there were only 211 students in the department of Science; in 1921-22 the respective figures were 1,071 and 195. Again, while the department of Arts included as many as fifteen distinct subjects, many of them consisting of several sections and sub-sections, there were only eight subjects in the department of Science. It is further worthy of note that three of the subjects in the department of Arts, namely, Experimental Psychology, Anthropology and Pure Mathematics lie on the border-land of Arts and Science, if, indeed they are not really included in the domain of Science. Apart from this, the fact cannot be ignored that the department of Arts in an Indian University must be of an even more comprehensive character than in a western University, in as much as many of the subjects must be studied and investigated with reference to eastern as well as western conditions. For instance, subjects like History, Philosophy and Economics have to be approached by the Indian student from a standpoint not quite identical with what appeals to a western student. Even if this factor be not taken into account, it will be found that in many western Universities not specially devoted to Science, the scope of activities in the department of Letters is more comprehensive and involves the expenditure of a larger sum of money than the Science side.

Finally, the implications of the suggestion that the expenditure on the science side from the University Funds should be increased, are perhaps not always fully realised. Thus, if it were proposed to increase the number of students now annually admitted into the University College of Science, a substantial amount of capital expenditure would be inevitable, as additional buildings and laboratory appliances would at once be needed. The University cannot be expected to contribute continuously, from its precarious fee income, large sums thus required for capital expenditure. It is also well-known that in a scientific subject which is always accompanied by laboratory work, each student costs an appreciable sum in the way of recurring expenditure.

It has been calculated, for instance, that in the department of Chemistry, the monthly expenditure on each student is nearly three times the tuition fee paid by him. Far different is the position in the department of Arts, where it is immaterial whether, for instance, forty or sixty students attend a class in Philosophy. It is desirable to add here that, apart from all these considerations, there is a fundamental difficulty in the way of a substantial increase in the number of Post-Graduate students in the department of Science. Experience has shown that the accommodation available for B.Sc. students in our affiliated Colleges is strictly limited, and the training which is received by many of them is not sufficiently thorough so as to enable them to profit by a course of post-graduate study. This points to the conclusion that the affiliated Colleges themselves require to be strengthened, so that there may be a larger supply of better qualified graduates for admission into the University classes. This clearly raises a problem which the University cannot be expected to solve by means of its unaided efforts. When the true facts are correctly appreciated, it will, we think, be found that there is no ground for the imputation that the University has unduly favoured the department of Arts to the detriment of the department of Science. It should also be borne in mind that while the department of Science has attracted notable endowments, there is nothing substantial which can be deemed worthy of mention in the department of Arts. Moreover, the grant from the public funds is equally inadequate in the case of both the departments. Consequently, the Arts side must rely for its maintenance, in a much larger measure than the Science side on the general fund of the University—unless, indeed, it is intended that the department of Arts should be starved out of existence.

Before we pass on to the next point, we may set out, in the form of a tabular statement, the amount spent during the last ten years in the Department of Arts under the principal heads of expenditure :

POST-GRADUATE TEACHING IN ARTS.

YEAR.		Minto Professor of Economics.	Hardinge Professor of Higher Mathematics.	George V Professor of Mental and Moral Philosophy.	Carmichael Professor of Ancient Indian History and Culture.	University Professors and Lecturers.	Administration.	Library.	Furniture.	Stationery and Contingencies.	Scholarship.	Electric Expenses.	Provident Fund.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1911-12	...	9,000	...	...	...	...	...	...	...	...	...	...	...
1912-13	...	5,250	...	...	2,032	46,141	...	...	...	...	...	...	...
1913-14	...	5,935	9,950	5,000	12,000	66,289	...	...	...	...	...	...	...
1914-15	...	15,428	15,000	12,000	4,645	1,23,521	...	...	...	...	...	2,804	...
1915-16	...	14,573	15,000	12,000	...	1,32,580	...	...	...	...	...	2,607	...
1916-17	...	15,000	6,250	12,000	...	1,34,994	...	...	...	...	...	2,982	...
1917-18	...	15,000	7,185	12,000	10,967	2,15,966	8,003	5,517	1,508	722	...	3,306	...
1918-19	...	9,032	16,200	12,000	12,000	3,24,472	19,730	18,724	2,211	1,499	925	3,209	...
1919-20	...	4,839	16,200	14,750	12,000	3,28,645	28,286	20,759	1,170	2,180	4,163	6,024	3,621
1920-21	...	12,000	16,200	10,935	16,145	3,88,215	25,453	18,303	1,957	2,637	7,520	3,449	12,082
TOTAL	...	1,06,057	1,01,985	90,685	69,789	17,60,823	81,472	63,303	6,846	7,038	12,608	24,381	15,703

GRAND TOTAL—23,40,690.

This sum was met from :	Rs.
(1) Government grant for three Professorships	2,98,727
(2) Government grant for University Lecturers	1,35,000
(3) Tuition fees from students	6,58,106
(4) University funds	12,48,857
TOTAL Rs.	23,40,690

The figures in this table, when contrasted with those contained in the table set out above regarding the University College of Science, bring into relief two vital points. In the first place, the contribution from the University Funds for Post-Graduate teaching in Arts has not been unduly excessive in comparison with the contribution to the College of Science. In the second place, while in the case of the Department of Arts, the University has not contributed even double the amount of tuition fees, in the case of the Department of Science, the University has contributed more than fifteen times the amount of tuition fees.

"THOUGHTLESS EXPANSION"

We next proceed to deal with the grave charge that the expansion of higher teaching in the University furnishes evidence of "criminal thoughtlessness." It is not essential for our present purpose to trace the development of Post-Graduate Teaching in the University, under the Regulations framed in 1906, and before the introduction of the system now in operation. In 1916, the Government of India appointed a Committee to advise them on the best method of consolidation of Post-Graduate studies. The Committee consisted of Mr. Hornell, Dr. Hayden, Mr. Anderson, Dr. Seal, Dr. Howells, Dr. P. C. Ray, Mr. Hamilton, Mr. Wordsworth and Sir Asutosh Mookerjee as Chairman. On the 12th December, 1916, the Committee presented a unanimous report, which outlined a comprehensive scheme of reconstruction. The Government of India expressed their approval of the Report with the concurrence of Lord Carmichael, who was, at the time, Rector of the University. The Government of India then forwarded the Report to the Senate for consideration, with the intimation that, if the scheme framed by the Committee should find favour with the Senate, the Government would be prepared to accord their sanction to it. After a prolonged debate, the Senate adopted the principle formulated in the Report and framed Regulations with a view to carry it into immediate execution. Lord Ronaldshay, who had meanwhile, succeeded Lord Carmichael as Rector, after independent examination of the scheme became, as he himself stated in his Convocation Address in 1920, its "convinced supporter" and "gave to it all the support which was within his power." On the 26th June, 1917, the Government of India accorded their sanction to the Regulations for Post-Graduate Teaching in various branches of Arts and Science. Since then, the Regulations have been amplified with the sanction of the Government concerned, and new subjects have been taken up for study and research, such as Indian Vernaculars, Anthropology, Ancient Indian History and Commerce. The scheme now in operation is thus the result of deliberate thought and anxious discussion on the part of all the authorities concerned.* The financial aspect of the matter was manifestly kept well in mind by the framers of the Regulations when they inserted the following provision in section 45 of Chapter XI of the Regulations:

"From the date of commencement of the Regulations contained in this chapter, a fund shall be constituted for the promotion of Post-Graduate studies, to be called "The Post-Graduate Teaching

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* It is important to recall in this connection that such of the University Chairs as are maintained out of University funds and not out of endowments have all been established, as required by Sec. 1 of Chap. IV of the Regulations, with the previous consent of the Government of India. The Carmichael Professorship of Ancient Indian History and Culture was established in this manner in 1912, the Professorship of Comparative Philology in 1913, the two Professorships in English Language and Literature in 1913, the Professorship of Botany in 1917, the Professorship of Zoology in 1917, and the Professorship of International Law, Public and Private, in 1919.

Fund." To such fund there shall be annually credited

(*a*) grants from Government and benefactions made specifically for this purpose by donors;
(*b*) fees paid by students in the Post-Graduate classes;
(*c*) one-third of the fees realised from candidates for the Matriculation, I.A., I.Sc., B.A., and B.Sc. Examinations; and
(*d*) such other sums as the Senate may, from time to time, direct."

At the time when the Regulations were framed, the fees payable by candidates for the Matriculation, I.A., I.Sc., and B.A. examinations were raised from Rs. 12, Rs. 25, Rs. 25, Rs. 35 to Rs. 15, Rs. 30, Rs. 30, Rs. 40, respectively, with the proviso that one-third of the fees realised, including the fees for the B.Sc. examination (which remained unaltered), must be credited to the Post-Graduate Teaching Fund. It was fully anticipated that this contribution by itself would not be sufficient to enable the University to discharge the obligation imposed upon it, and that reliance would have to be placed upon grants from the Government, upon private benefactions, and upon such other sums as the Senate might from time to time find it practicable to vote from its general income. Economy and efficiency cannot be measured by a mathematical standard; but, subject to the obvious reservation that an educational institution maintained for the Advancement of Learning cannot be run on commercial lines, the system has been carried out with such economy as is consistent with efficiency. We are aware that the suggestion has been repeated from time to time that the salaries paid to Post-Graduate teachers were unusually liberal and that they were overpaid and underworked. This criticism is sufficiently answered by the significant fact that lecturers in the Post-Graduate Department, have been eagerly sought after by promoters of new Universities and Heads of Government Departments who have offered them more liberal salaries and more attractive terms than this University has ever been in a position to hold out.* On the other hand, a new line of criticism has recently found some favour, namely, that the University need not undertake instruction in subjects which do not attract a large number of students. This objection, if allowed to prevail, would sweep away most of the subjects which should be included in the Post-Graduate scheme of an Indian University, if it is to justify its existence as an oriental seat of learning. It will further be found that not a few lecturers have to work in more than one department and some of them moreover are in charge of large under-graduate classes in subjects, not taken up in most of the affiliated Colleges in the city.†

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* In this category may be included, amongst others, Dr. Brajendranath Seal (Mysore), Dr. Ganesh Prasad (Benares), Dr. Rameschandra Majumdar (Daccà), Mr. Krishna Binod Saha (Dacca), Mr. Haridas Bhattacharyya (Dacca), Mr. Nalinimohan Bose (Dacca), Mr. Satyendranath Bose (Dacca) Mr. Sahidullah (Dacca), Dr. Jnanendrachandra Ghose (Dacca), Mr. Surendranath Majumdar (Patna), Dr. Radhakamal Mookerjee (Lucknow), Mr. Bhujangabhushan Mookerjee (Lucknow), Mr. Praphullachandra Bose (Indore), Mr. K. G. Naik (Baroda), Mr. A. K. Chanda (I.E.S.), Mr. B. N. Seal (I.E.S.), Mr. Durgagati Chattoraj (P. E. S.), Mr. Abinaschandra Saha (P. E. S.), Mr. Anantaprasad Banerjee (P. E. S.), Mr. Dhireschandra Acharyya (P. E. S.), Mr. Panchanandas Mookerjee (P. E. S.), Mr. Ramaprasad Chanda (Archæological Dept.), Mr. S. N. Bal (Botanical Dept.) Mr. Srinivasa Rao (Zoological Dept.), Dr. Sudhansukumar Banerjee (Meteorological Dept.), Mr. Chinmayanandan (Meteorological Dept), Dr. Rasiklal Datta (Industries Dept.).

† As an illustration we may mention that a criticism has on this ground been directed against the Department of Pali amongst others. It has been urged that to maintain a staff of 8 teachers for 8 Post-graduate students is an indefensible waste of money. This overlooks, however, the undeniable fact that the number of teachers requisite for specialisation and for advanced instruction and research, depends very largely upon the extent and scope of the subject concerned. Moreover, these Post-graduate teachers in Pali have to take part along with two junior lecturers, in the work of 7 junior classes in Pali, for Matriculation, First Year, Second Year, Third Year Pass, Third Year Honours, Fourth Year Pass and Fourth Year Honours students. The students in these classes number 100 men on an average. The members of the staff in Pali have also to

On the other hand, the fact cannot be ignored that the University Commission recommended (Report, Vol. 5, p. 282) that, apart from all questions of reconstruction of the University, a grant of Rs. 1,25,000 a year should be made by the Government with a view to increase the salaries of the members of the Post-Graduate staff which, on an average, amounted to Rs. 225 a month and should not, according to the Commission be, on an average, less than Rs. 300 a month. It will also be recalled that in anticipation of probable financial stringency as the result of the Great War, the Senate sought the sanction of the Government to a proposal for increase in the examination fees. The Government declined to accord the necessary sanction, except to a limited extent. Meanwhile, the expenditure in the general department of the University has appreciably increased as the result of post-war conditions. At the same time, the steady rise in the income of the University has been arrested by the successive creation of the Patna University, the Rangoon University, the Dacca University and the Dacca Intermediate Board. The embarrassment of the situation has moreover been accentuated by an unforeseen reduction in the number of candidates at various examinations, which has been attributed to political excitement spreading throughout the country. If all these circumstances are borne in mind, the University cannot be rightly charged with "thoughtlessness" in matters financial. Neither can it be blamed for duplicating the work of instruction available in other academic centres. The truth is that this University has been the first in

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deal with Pali as basic language in the Department of Indian Vernaculars and with the History and Philosophy of Buddhism in the Department of Ancient Indian History. The Departments are, indeed, so correlated and interdependent that the abolition of one may involve the abolition of the others. Observations of a similar character apply to other departments, such as Arabic and Persian, and Anthropology. Though the number of Post-Graduate students in Arabic and Persian is small, there are under-graduate classes, which contain on an average 170 students. In Anthropology the number of Post Graduate students is steadily increasing; there are besides under-graduate classes which contain about 140 students.

the field in the matter of Post-Graduate teaching, and while the grants it has received from the State have not been increased for many years past, notwithstanding the expansion of its activities, other institutions have been created within its jurisdiction and are being maintained by liberal grants from the State, thus duplicating the work which had already been undertaken and performed by this University.

Here we may conveniently set out the grants annually received by this University from the Government.*

(1) Minto Professorship (Economics)—Rs. 10,000 since 1909-10, raised to Rs. 13,000 since 1913-14.
(2) Hardinge Professorship (Mathematics)—Rs. 12,000 since 1912-13.
(3) George V Professorship (Philosophy)—Rs. 12,000 since 1912-13.
(4) Laboratory (Science)—Rs. 12,000 since 1912-13.
(5) Readers—Rs. 4,000 since 1912-13.
(6) University Post-Graduate Lecturers—Rs. 15,000 since 1912-13.
(7) Law College—Rs. 20,000 since 1909-10.
(8) Law College—Rs. 10,000 since 1912-13.
(9) Inspection, General Administration—Rs. 25,000 since 1905-6.†
(10) Travelling expenses of Fellows—Rs. 5,000 since 1905-6.

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* Besides the grants enumerated, there is a sum of Rs. 13,128 placed by the Local Government in the hands of the University for part payment of rent of houses occupied by students of affiliated colleges. This can in no sense be treated as a grant to the University. Under the Regulations, the duty is cast upon the Colleges to provide for suitable residences for such of their students as do not reside with legal or approved guardians. This grant was instituted with a view to diminish the burden which might otherwise have been thrown by the Colleges upon their students.

† The cost of inspection of Colleges exceeds Rs. 18,000 a year, leaving less than Rs. 7,000 a year available for the general administration of the University.

If these sums were considered essential for the needs of the University so many years ago, it is undeniable that grants on a much more liberal scale from the public funds would, *prima facie*, be necessary now to meet its steadily growing demands. What requires revision is not the ideal of those, who have developed and carried on the work of Post-Graduate teaching in the University, often amidst unpropitious circumstances, but the stand-point of those who are entrusted with the duty of promoting higher education by the assignment of grants from public revenues.

While on this subject, we may draw attention to the remarkable fact that although the grant for Post-Graduate teaching has remained unaltered during the last ten years, the introduction of the present system has actually resulted in pecuniary benefit to the Government of Bengal. The system, as is well known, is based upon the principle of co-operation between the Colleges and the University. Many of the Professors in the Presidency College have accordingly been appointed University Lecturers. The University offers them an honorarium of Rs. 1,200 a year each. The Government of Bengal receives the amount from the University and does not pay it to the Professors concerned. On the other hand, the authorities of the Presidency College have to pay over to the University the tuition fee recoverable from such Post-Graduate students as attach themselves to that College. The difference between the sum appropriated by the Government of Bengal and the sum paid by the Presidency College to the University shows a substantial balance in favour of the Government, as will appear from the following statement:

1917-18	... ...	Rs. 3,464
1918-19	... ...	„ 14,255
1919-20	... ...	„ 15,976
	Total	Rs. 33,695

It thus appears that the University has not only failed to induce the Government to increase its contribution towards Post-Graduate teaching, but has actually enriched the Government through its Post-Graduate department. It is also worthy of note that while control is claimed over the University as if it were a department of the Government, the University is treated as an outside body when revenue has to be levied. Thus, a sum of Rs. 4,880-9 has been recovered from the University during the period between 1st July, 1920 and 31st March, 1922 as customs duty on laboratory instruments brought out for the University College of Science, whereas no such duty is exacted from what are known as "Government Colleges." The instances of civic thoughtfulness mentioned above may, perhaps, indicate the nature of the treatment hitherto accorded to the University by the Government.

We feel bound to make some other observations before we leave this topic. As prescribed by the Regulations an elaborate procedure has to be followed whenever an appointment is made in the Post-Graduate department. The matter has to be placed successively before the Board of Higher Studies concerned, the Executive Committee, the Council, the Syndicate and the Senate. Each nomination is liable to be challenged at every stage of this process, and the appointment, when made by the Senate, is required to be notified to the Government for the possible exercise of a power of veto on grounds other than academic. Criticisms of a general character to the effect that appointments thus made have been often injudicious should not carry weight with men of judgment and experience. Indeed, a careful study of the list of Post-Graduate teachers would make it manifest that appointments have been made with care and caution. During the last two or three years, there have been many instances where vacancies on the staff, due to death, resignation or like causes, have not either been filled up at all in view of financial stringency, or have been filled up by the appointment of younger men on smaller salaries.* But it must be kept in view that every vacancy in the staff cannot be left open, even if a moderate standard of efficiency is to be maintained, specially where the interests of students, who are already undergoing training in a subject, must be safeguarded. It should not also be overlooked that the conditions of service in an educational organisation of this character, which includes many a scholar of high academic attainments, cannot be modified all on a sudden. This remark is of special force when we bear in mind that many members of the staff hold appointments for a specified term; but for such moderate security of tenure, it would have been impracticable to retain the services of competent men on the University staff. On the other hand, if it be maintained that Post-Graduate teaching should not have been undertaken by the University unless and until permanent guarantees of adequate grants could be obtained from the Government, experience renders the conclusion highly probable that there would never have been established a Teaching University in Calcutta. Further, the fact remains that the Government of India, though reluctant to give increased financial assistance to this University for the development of higher teaching, have found it within their means to provide large sums of money for the establishment of a University at Dacca, and, in spite of their own increasing financial embarrassments, a University at Delhi. The fundamental importance of the idea of a Teaching University, which has been first put forward and carried out in Calcutta, is now appreciated all through India, and Governments,

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* In this category are included the vacancies, amongst others, in connection with Prof. Robert Knox, Mr. A. K. Chanda, Mr. Jyotischandra Ghosh and Miss Regina Guha of

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the Department of English; Mr. Surendranath Majumdar, Mr. Radhagobinda Basak and Mr. Niranjanprasad Chakrabarti of the Departments of Sanskrit and Pali; Geshe Lobzan Targay and Lama Dawasamdup Kazi of the Department of Tibetan; Mr. Mohitkumar Ghosh, Mr. Durgagati Chattoraj, Mr. Krishnabinod Saha, Mr. Praphullachandra Bose and Dr. Radhakamal Mookerjee of the Department of Economics; Dr. Rameschandra Majumdar, Mr. Ramaprasad Chanda and Mr. J. Masuda of the Department of History; Mr. P. K. Chakrabarti, Mr. B. N. Seal, Mr. H. D. Bhattacharyya and Dr. R. D. Khan of the Department of Philosophy; and Mr. Sahidullah of the Department of Indian Vernaculars.

imperial and local, have shewn their readiness to promote the development of Teaching Universities—with the exception of Bengal, so far as Calcutta alone is concerned. Notwithstanding repeated assurances by the Government of India that the applications of this University for financial assistance towards the development of higher studies would be considered, the question, as we have seen, has been put off from time to time on a variety of grounds, till ultimately that Government severed all connection with this University. We cannot pass over in silence the fact that the Govnernmet of India incurred heavy expenditure by the appointment of a Commission in the expectation that a scheme of reconstruction might be framed for the University of Calcutta. Lord Chelmsford in his Convocation address delivered on the 16th December, 1918, held out hopes that if the "Commission were unanimous in their main recommendations, he would lose no time in giving effect to them." To be brief, these hopes have not been fulfilled. Meanwhile, the Government of Bengal have pleaded their inability to render financial assistance on account of their own financial embarrassment.

It will be interesting to note here that the Government of India, while appointing the Post-Graduate Committee in 1916, stated that the Committee should frame its recommendations merely with a view to the best expenditure of existing funds and should understand that further grants for post-graduate education could not be expected in the near future. This plainly could not be taken to have abrogated the position indicated in the letters from the Government of India dated the 14th January, 1913, and the 23rd December, 1913, in reply to the applications of the University for financial assistance in recognition of the great endowments created by Sir Taraknath Palit and Sir Rashbehary Ghose. We must further remember that even after the report of the Post-Graduate Committee had been accepted by the Government of India, they stated explicitly in their letter of the 9th August, 1917 that the question of granting financial assistance to the University for the purposes of higher teaching was—not finally decided against the University—but only deferred "pending receipt of the recommendations of the *proposed* University Commission." We fail to understand how in these circumstances the conduct of the members of this University may be deemed justly open to the charge of "criminal thoughtlessness."

UNIVERSITY LAW COLLEGE

Reference is made in the speech of the Minister to the grant of Rs. 30,000 to the University Law College, and it is stated that the College is not only a self-supporting institution but is a paying concern. This, according to him, renders it necessary, when the proper time comes, for him to consider the propriety of diverting the grant from the Law College to the Science College. We cannot but express our deep regret that a step of this nature should have been suggested by a responsible Minister without previous reference to the authorities of the institution concerned. The University Law College is an affiliated College of the University, created with the approval of the Government of India, who sanctioned, as we have seen above, an annual grant of Rs. 20,000 since 1909 and an additional grant of Rs. 10,000 since 1912. As required by the Indian Universities Act, the management of the College is vested, subject to the ultimate control of the Senate, in a Governing Body, constituted as follows:

The Vice-Chancellor—President, *Ex-Officio.*
Three Judges of the High Court (nominated by the Chief Justice of Bengal in consultation with the Vice-Chancellor).
The Advocate-General of Bengal, *Ex-Officio.*
The Senior Government Pleader of the High Court, *Ex-Officio.*
Three members nominated by the Faculty of Law, one of whom at least, is a member of the Bar and one, a Vakil of the High Court.
One Representative of the Incorporated Law Society.

The Legal Remembrancer to the Government of Bengal, *Ex-Officio.*
The Director of Public Instruction, Bengal *Ex-Officio.*
The Principal of the College, *Ex-Officio.*
The Vice-Principal of the College, *Ex-Officio.*
Two Lecturers of the College elected by the staff.

It is not necessary for our present purpose to recapitulate the circumstances which led to the foundation of the College and which are narrated in Chapter XXII of the Report of the University Commission. But it is perfectly plain that a scheme of this character, which is intended to deprive the College of the entire grant it has been enjoying for many years past, should not be planned without previous reference to the Governing Body, responsible for the management of the Institution. Figures taken at random from Budget estimates or reports of auditors are not always sufficient to enable one to obtain an insight into the working of an institution or to form a just estimate of its needs. We do not wish to prejudge the attitude which may be taken up by the Governing Body when the Minister proceeds to carry into execution his intention to deprive the College of its grant; but we may mention facts which show that the situation is not precisely as described in the speech. In 1919, the Senate, with the assent of the Government of India, created a Professorship of International Law, Public and Private, and appointed to the Chair Prof. Arthur Brown whose salary to the extent of Rs. 1,000 a month was to be paid out of the Law College Funds. At the request of the Government of India, the services of Prof. Arthur Brown have been placed at their disposal temporarily; when Prof. Brown reverts, the University will have to fulfil its obligations. There are other commitments also, which are fully known to persons intimately acquainted with the management of the Institution. To take one illustration, the College has a whole-time Principal whose appointment is permanent; his leave, furlough and retiring allowances are not quite negligible quantities. To take another illustration; the College is located in the Darbhanga Buildings, which, with the lapse of time, is now in need of thorough repairs; the question may be asked, is not the College justly liable to contribute a reasonable share of the maintenance charges and of the rates and taxes? These and other matters will obviously require very careful examination by the Governing Body before the grant is reduced or suspended. Finally, a step of this description can never be justly taken without sufficient previous notice, so that there may be no sudden dislocation of existing arrangements. We may, at this stage, give a financial statement of the College since its foundation, which indicates at a glance that the income already shows signs of steady decline; in such circumstances, an assumption as to the continuance of a margin of safety may prove delusive before long.

UNIVERSITY LAW COLLEGE.

Year.	Fees.	Government Grant.	Miscellaneous Receipts.	Salary.	Books.	Book-binding.	Furniture.	Scholarship.	Stationery and Contingencies.	Mess Establishment.	Electric Expenses.	Refund.	Repayment of Advance from Fee Fund.	Contribution to University Corps.	Miscellaneous Expenses.	Printing Syllabuses.	Foundation Day Expenses.	Athletic Expenses.
	Rs.	Rs.	Rs.	R	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1908-09	750	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1909-10	32,217	23,500	...	47,972	21,736	2,607	9,034	750	647	...	...	...	...	...	...	...	...	...
1910-11	36,487	28,500	10,400	58,054	7,298	126	1,193	2,310	415	809	...	...	...	...	...	...	...	...
1911-12	48,197	33,500	...	61,947	16,420	578	3,527	3,214	506	1,010	...	...	...	...	...	..	...	..
1912-13	75,486	33,500	...	92,717	32,291	...	...	3,470	472	1,511	...	...	...	...	...	...	...	...
1913-14	1,25,418	33,500	...	1,23,864	21,362	...	3,690	3,476	25	2,020	...	...	...	...	...	...	...	...
1914-15	1,49,220	30,000	101	1,48,420	4,154	940	125	3,014	312	1,674	2,804	31	...	...	...	...	...	...
1915-16	1,60,292	30,000	...	1,48,975	1,486	642	72	2,382	493	1,730	2,607	24	10,000	...	..	...	...	...
1916-17	1,65,411	30,000	...	1,58,489	19,984	428	764	1,646	319	2,594	4,094	8	20,000	...	...	...	...	...
1917-18	1,98,378	30,000	...	1,63,648	13,673	373	678	1,932	343	3,838	3,306	...	25,586	250	29	...	...	...
1918-19	2,00,855	30,000	...	1,84,927	3,150	505	940	1,940	1,399	3,985	3,196	198	...	250	...	...	...	...
1919-20	1,75,737	30,000	307	1,83,897	10,233	754	1,194	2,010	334	3,885	6,024	71	...	...	...	936	905	905
1920-21	1,69,565	30,000	42	1,83,943	11,947	693	1,194	2,082	1,291	3,660	3,450	37	...	...	...	1,403	825	950
1921-22 (9 months)	1,41,404	30,000	...	1,14,397	3,483	259	41	1,526	261	2,920	...	119	...	...	...	236	270	1,350
TOTAL ...	16,79,417	3,92,500	10,850	16,71,250	1,67,217	7,905	22,452	29,752	6,817	29,636	25,481	488	55,586	500	29	2,575	1,095	3,205

The information contained in the above table may be so re-arranged as to show at a glance, year by year, the receipt and the expenditure, indicating that there is now no longer an excess of the income over the expenditure as was the case some years previously. This is traceable to the fall in the number of students as will appear from the following tables.

NUMBER OF STUDENTS FROM 1909-10 TO 1921-22

Session.	Number in the beginning of the session.	Number at the end of the session.
1909-10	536	520
1910-11	657	630
1911-12	652	632
1912-13	1,252	1,190
1913-14	1,715	1,533
1914-15	1,950	1.867
1915-16	2,163	2,000
1916-17	2,403	2,161
1917-18	2,226	2,140
1918-19	2,369	2,124
1919-20	2,080	1,868
1920-21	2,191	1,570
1921-22 ...	1,987	1,655

UNIVERSITY LAW COLLEGE

	1908-09		1909-10		1910-11		1911-12		1912-13		1913-14		1914-15		1915-16		1916-17		1917-18		1918-19		1919-20		1920-21	
	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.
...	750	...	32,217	...	36,487	...	48,197	...	75,486	...	1,25,418	...	1,49,220	...	1,60,292	...	1,65,411	...	1,98,378	...	2,00,855	...	1,75,737	...	1,69,565	...
ıt ...	...	...	23,500	...	28,500	...	33,500	...	33,500	...	33,500	...	30,000	...	30,000	...	30,000	...	30,000	...	30,000	...	30,000	...	30,000	...
ceipts	...	...	...	...	10,400	...	...	...	...	...	...	...	101	...	...	...	...	...	...	...	...	...	307	...	42	...
...	...	...	...	47,972	...	58,054	...	61,947	...	92,717	...	1,23,864	...	1,48,420	...	1,48,975	...	1,58,489	...	1,63,648	...	1,84,927	...	1,83,897	...	1,83,943
...	...	...	...	21,736	...	7,298	...	16,420	...	32,291	...	21,362	...	4,154	...	1,486	...	19,984	...	13,673	...	3,150	...	10,233	...	11,947
...	...	...	..	2,607	...	126	...	578	..	...	...	...	...	940	...	642	...	428	...	373	...	505	...	754	...	693
...	...	...	...	9,034	...	1,193	...	3,527	...	...	...	3,690	...	125	...	72	...	764	...	678	...	940	...	1,194	...	1,194
...	...	...	...	750	...	2,310	...	3,214	...	3,470	...	3,476	...	3,014	...	2,382	...	1,646	...	1,932	...	1,940	...	2,010	...	2,082
Contin-	...	...	...	647	...	415	...	506	...	472	...	25	...	312	...	493	...	319	...	343	...	1,399	...	334	...	1,291
ıt ...	...	...	...	...	...	809	...	1,010	...	1,511	...	2,020	...	1,674	...	1,730	...	2,594	...	3,838	...	3,985	...	3,885	...	3,660
...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,804	...	2,607	...	4,094	...	3,306	...	3,196	...	6,024	...	3,450
...	...	...	...	...	...	...	...	...	...	..	...	...	...	31	...	24	...	8	...	...	...	...	...	...	...	...
vance	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10,000	...	20,000	...	25,586	...	198	...	71	...	37
Uni-	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	..	...	250	...	...	...	...	...	...
enses	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	29	...	250	...	...	...	..
...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	936	...	1,403
Ex-	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	905	...	825
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	...	...	905	...	950
...	750	...	55,717	82,746	75,387	70,205	81,697	87,202	1,08,986	1,30,461	1,58,918	1,54,437	1,79,321	1,61,474	1,90,292	1,68,411	1,95,411	2,08,326	2,28,378	2,13,656	2,30,855	2,00,490	2,06,044	2,11,148	1,99,607	2,11,475

Charge of Delay.

The Minister in his speech states, almost in a tone of complaint, that the University had not supplied the information asked for with regard to the resolution for the appointment of a Committee adopted by a majority of the Members of the Legislative Council on or about the 30th August, 1921. That there is no ground for the complaint against the University is clear from the following statement of facts :

30th August, 1921	...	Mr. Sarkar's motion carried in Council.
5th December, 1921	...	Letter No. 2504-Edn., dated the 2nd December, 1921, from the Deputy Secretary to the Government of Bengal, forwarding copy of the resolution and inviting observations of the University.
9th December, 1921	...	Ditto—placed before the Syndicate. Order—Ask Government to send 21 copies of Debates.
12th December, 1921	...	Letter (Mis. 4606) to Government forwarding resolution of the Syndicate, dated the 9th December, 1921.
17th January, 1922	...	Reminder to above (Mis. No. 5130).
30th January, 1922	...	Ditto—(D. O. G. 81).
23rd February, 1922	...	Letter No. 379-Edn., dated the 22nd February, 1922, from the Deputy Secretary to Government forwarding 15 copies of the Debates.
24th February, 1922	...	Ditto—placed before the Syndicate. Order—Circulate copies of the Debates to members of the Syndicate and bring up after a fortnight.
2nd March, 1922	...	Letter No. Mis. 6090 to the Deputy Secretary to Government communicating orders of the Syndicate, dated the 24th February, 1922, and informing that it will necessarily take some time to communicate decision of the Syndicate.

10th March, 1922 ...	Matter considered by the Syndicate. Government to be informed that financial information would be supplied. Matter referred to the Senate.
25th March, 1922 ...	Committee appointed by the Senate.

ARRAY OF NUMERICAL FIGURES

The report of the speech delivered by the Minister bristles with numerical figures, which purport to have been selected at his choice from records available to him. Some of these figures cannot, in the absence of specific references, be verified, while others do not justify the inferences drawn from them. Thus, it is maintained that in 1916-17 the University spent nothing on the Science side. The tabular statement given on page 13 shows, on the other hand, that in 1916-17 the expenditure on the University College of Science was Rs. 1,49,571. Comparison is also instituted between expenditure on the Arts side and the Science side respectively in different years, and it is sought to be made out that the expenditure by the University on the Arts side out of what is called "its own funds" is disproportionately excessive; but the very important fact is overlooked that a large portion of the sum so spent on the Arts side came from the tuition fees paid by the students themselves. Reference is again made to the opening balances of the Fee Fund from year to year, and it is attempted to prove that in the year ending in June, 1920, the University spent Rs. 1,88,743 of the previous year's balance, plus Rs. 29,171 totalling Rs. 2,37,000 "over and above the huge fee receipts of Rupees eleven lakhs or so." This statement is calculated to produce an erroneous impression, because it is based on the inaccurate assumption that the so-called opening balance was a real surplus. The financial year of the University ends on a date arbitrarily fixed, namely, on the 30th June, after the fees for some of the principal examinations have been received and before the whole of the expenditure has been actually met. The time when the expenditure is met depends largely on the date of publication of the results. It is, therefore, not safe to draw inferences on the assumption that the opening balance shewn in the budget estimates for a particular year is a real surplus. It is not desirable that the action of the University should be criticised in this manner before an audience not in a position to controvert the assertions and without opportunity being given to the University to examine in detail the alleged objections. Intelligent criticism is impossible without much fuller knowledge of the details of University administration than the Minister can be expected to acquire on a study of budget estimates with or without the aid of experts. We cannot leave this topic without reference to the strange theory which has been put forward, that the amount of three crores of rupees spent annually on education in this province, including fees and contributions from the people and local bodies, "goes to help the Calcutta University, though indirectly, in the discharge of its functions." We can only venture to express the hope that when the nature of the activities of the University in the sphere of advanced study and research is fully appreciated, this theory will not be invoked to justify the refusal of financial assistance commensurate with the needs of the University.

CONCLUSION

Our conclusion is that the facts and arguments set out above amply establish that there was no justification for the attack on the University, while many of the comments were clearly without jurisdiction. Thus the University is advised "to give up its present policy of needlessly irritating the Council on matters financial," "from higher and patriotic self-interest at all events" and it is assumed that if the Vice-Chancellor "makes up his mind, things will be easy in the Calcutta University." We are of opinion that the University has furnished no occasion for the alleged irritation, and we may add without impropriety that the decision of matters in difference, if any, between the University and the Government does not rest with the Vice-Chancellor individually, as is supposed, but with the Senate as the Body Corporate. Apart from this instance, there are other matters in the speech, which make it impossible for us to close without reference to its tone and language, which we regret to state, cannot but be deemed unfortunate. It is perhaps not always realised that members of an academic body, who have devoted long years to the service of the University and are intimately acquainted with the various phases of its development as also with the details of its administration, are not likely to be impressed by advice, given with an appearance of authority, though not well-founded on reason,—however exalted the position of the critic. There is plainly no occasion to " forgive and forget," nor is there any need to place this University " once more on the same high pedestal which it had occupied in the past," when one bears in mind that it has been readily acknowledged by critics, competent and impartial, that this University still occupies the foremost place amongst the Universities of India as a Teaching and Research Institution. We do not hesitate to maintain that this is not a case of " doles " to be given by way of accidental charity or compassion. Persons responsible for the development of the University have for years past strenuously worked in its best interests, often amidst the most discouraging circumstances, without that measure of aid from the Government which was legitimately its due. It is now the turn of the custodians of the public funds to recognise their duty and to fulfil their obligation in a befitting manner, for the spread of true University education amongst the people of this province.

ASUTOSH MOOKERJEE
NIL RATAN SIRCAR
HERAMBA CHANDRA MAITRA
A. CHAUDHURI
P. C. RAY
GEORGE HOWELLS
BIDHAN CHANDRA RAY

SENATE HOUSE :
The 29h April, 1922.

APPENDIX I.

A letter from the Registrar, Calcutta University, to the Joint Secretary to the Government of India, Education Department, through His Excellency the Rector, dated the 30th December, 1912.

"I am directed by the Hon'ble the Vice-Chancellor and the Syndicate to address the Government of India upon the question of a special grant for higher teaching in the University of Calcutta. The Vice-Chancellor and the Syndicate are deeply grateful to the Government of India for the liberal financial assistance they have already rendered to the University, but they believe that the recent developments in University work not only justify, but make it incumbent upon, them to put forward a claim for a further substantial grant for the next financial year.

The Government of India are no doubt aware that in the course of the six months, Mr. T. Palit, Bar-at-Law, has made to the University a princely gift of money and property of the aggregate value of nearly 15 lakhs of rupees for the purpose of founding a College of Science and for the general improvement of scientific and technical education. Under the terms of the deeds of gift, the University is bound to maintain from the income of the endowment, a Chair of Physics and a Chair of Chemistry and to institute a scholarship to be awarded to a distinguished graduate for the study of Science in a foreign country; the University is also bound to establish a laboratory for advanced teaching and research and to contribute towards this object at least two and a half lakhs of rupees out of its own funds. But this sum is quite inadequate for the establishment of a laboratory of the kind contemplated. The Vice-Chancellor and the Syndicate are anxious that the fullest advantage should be taken of this unique opportunity to establish a Residential College of Science in Calcutta, and it appears to them that if the necessary funds are available, the object can be speedily accomplished without any difficulty. The properties vested in the University by Mr. Palit include, among others, two fine plots of land, one of 12 bighas and the other of 25 bighas in area. On the bigger plot there are two splendid three-storied houses, recently built, which are admirably suited to accommodate 200 students. If therefore, adequate funds were forthcoming to erect and equip the requisite laboratories and Professors' quarters on this plot, a Residential College could be set up in working order in the course of a year. The estimated cost of the project amounts to 15 lakhs of Rupees, and the Vice-Chancellor and the Syndicate do not hesitate to ask the

Government of India for a grant to the University of this sum. The gift of Mr. Palit is absolutely unique in the history of University education in this country, and they feel sure that the Government of India will be glad to supplement it by an at least equal amount to enable the University to carry out the scheme in its entirety, especially, in view of the fact that the University has already agreed to contribute 2½ lakhs out of its own very limited savings. I am desired to add that a sympathetic and generous attitude on the part of the Government of India towards the object which Mr. Palit had at heart, cannot fail greatly to influence public sentiment and may not improbably induce other wealthy gentlemen to found similar endowments for the encouragement of higher teaching.

The second subject to which the vice-Chancellor and the Syndicate desire me to draw the attention of the Government of India is the acquisition of the Fish Market situated to the south of the Senate House and east of the new University buildings. This site is urgently needed for further extension of University buildings. There can also be no doubt that from a sanitary point of view the market ought not to be tolerated in its present place immediately to the north of the Medical College Hospital and to the east of the hostels of medical students and University Law students. The purpose for which the property is required by the University may be briefly indicated. The University has now definitely undertaken post-graduate teaching, and there can be little doubt that advanced teaching for M.A., M.Sc., Ph.D. and D.Sc. degrees—for which the time is fully ripe—must be concentrated in Calcutta, so far, at any rate, as Western Bengal is concerned. The standard prescribed by the Regulations for the degrees of Master and Doctor is so high that adequate instruction in this respect cannot be expected to be imparted by private Colleges, possibly not even by isolated Government Colleges, which have to bear the burden of undergraduate teaching. Besides, the difficulty of securing the services of competent teachers for advanced instruction has been found to be so great that M.A. and M.Sc. instruction in several centres is beyond the range of practical politics. Even in Calcutta, the Presidency College with an exceptionally strong teaching staff and up-to-date equipments, is able to provide for the post-graduate teaching of no more than a very limited number of students in selected groups out of six subjects for the M.A. and M.Sc. Examinations. Under these circumstances, it is not surprising that the arrangements made by the University for post-graduate study have met with striking success. At the present moment, there are over 500 students attending systematic courses of lectures on various M.A. subjects under University Lecturers appointed and paid by the University; and there is reason to believe that their number will substantially increase next session. If this large body of post-graduate students is to be properly educated and kept under discipline, the question of lecture rooms, seminars and hostel accommodation at once urges itself upon our attention. If the site now occupied by the market were acquired for the University and a substantial grant made for the further extension of the University buildings, the need for which is already keenly felt, the question of teaching and residence of post-graduate students would in a great measure be solved. It has been estimated that the acquisition of the market would cost 8 lakhs of rupees and another 7 lakhs would be required for the proposed buildings. I am directed to point out that proposals for the acquisition of the market have from time to time been discussed for several years past; meanwhile the value of the property has rapidly increased, and further delay would mean further rise in value and payment of a heavier sum as compensation to the owner. Immediate acquisition would, therefore, prove to be ultimately economical, since the fish market must be acquired sooner or later for educational purposes, situated as it is in the heart of a locality studded on all sides with handsome educational buildings.

The third point to which I am directed to invite your attention, is the completion of the University Law College Hostel buildings towards the erection of which the Government of India have generously made a grant of 3 lakhs of rupees (the land having been acquired by the University for a lakh and a half out of its own funds). The Vice-Chancellor and the Syndicate would ask for a grant of one lakh for furniture, fittings and appliances for the 175 students who will be in residence from June next, as well as for the extra cost of construction of the building. The actual cost of the building has exceeded the estimate, as the apparently solid ground turned out to be in part a filled-up tank, and the foundations had to be laid very much deeper and wider than the Engineers and the Government Architect had anticipated.

The fourth point to which the Vice-Chancellor and the Syndicate desire me to draw the attention of the Government is the University Library. The one lakh contributed by the Government of India for the current year has been of great assistance to the University; but at least another lakh would be needed to bring the Library up to the requirements of Post-Graduate students and University Professors and Lecturers. The libraries in Calcutta are singularly lacking in modern books, periodicals and transactions of learned societies absolutely essential for advanced study and research work. The want in this respect could be met to a considerable extent if another lakh was granted next financial year.

The last subject to which the Vice-Chancellor and the Syndicate desire me to draw your attention is the foundation of at least three more Professorships. Provision has either been made for or is about to be made for seven Chairs in the University as follows:

(1) Professorship of Law founded by Prasannakumar Tagore.

(2) Professorship of Economics founded by the Government of India at the time of the Jubilee celebrations.
(3) and (4) Professorships of Higher Mathematics and of Mental and Moral Philosophy founded by the Government of India on the occasion of the Imperial visit.
(5) Professorship of Ancient Indian History and Civilisation founded by the University on the occasion of the Imperial visit.
(6) and (7) Professorships of Chemistry and Physics founded by Mr. Palit.

The three Chairs for which the Vice-Chancellor and the Syndicate now apply, should in their opinion, be devoted to Applied Mathematics, Modern History and Comparative Philology. The Vice-Chancellor and the Syndicate feel that there is pressing need for higher teaching in these branches of knowledge and that if adequate provision is made, there will be no lack of students to avail themselves of the benefits of such teaching. Each of the Chairs would require a recurring grant of Rs. 12,000 to Rs. 15,000 a year.

To summarise: The Vice-Chancellor and the Syndicate apply for financial aid to the following extent:

Non-recurring Grant.

	Rs.
(1) For the Residential College of Science supplementing the gift of Mr. Palit ...	15 lakhs
(2) (*a*) For the acquisition of the Fish Market	8 ,,
(*b*) For the erection of a hostel for Post-Graduate Students and for additional lecture rooms and seminars for advanced work and research ...	7 ,,
(3) For the completion and equipment of the University Law College Hostel Building	1 lakh
(4) For the University Library	1 ,,
TOTAL ...	32 lakhs

Recurring Grant.

	Rs.
(1) Professorship of Applied Mathematics ...	15,000
(2) Professorship of Modern History ...	15,000
(3) Professorship of Comparative Philology ...	15,000
TOTAL ...	45,000

In conclusion, the Vice-Chancellor and the Syndicate desire me to urge that this University is entitled to special consideration by reason of the determined and sustained effort it has hitherto successfully made to carry out loyally the reforms contemplated by the Indian Universities Act of 1904. Comparisons are obviously undesirable; but it cannot be disputed that this University has achieved a high measure of success in its endeavour to undertake and promote higher teaching, and the Vice-Chancellor and the Syndicate venture to express the hope that the Government of India will not be reluctant to place adequate funds at their disposal to continue and put on a wide and sound basis the work already begun. The Vice-Chancellor and the Syndicate finally desire me to assure the Government of India that should the funds be available, they would be able to bring the scheme into full realisation in less than two years. Should the whole of the non-recurring grant of 32 lakhs for which application is now made be not available during the next financial year, the Vice-Chancellor and the Syndicate will be ready to initiate the scheme if one half is granted during the year 1913-14 and the other half during the year 1914-15."

APPENDIX II.

A letter from the Registrar, Calcutta University, to the Joint Secretary to the Government of India, Education Department, through His Excellency the Rector, dated the 4th October, 1913.

" I am directed by the Syndicate to refer to correspondence resting with your letter No. 75 C.D., dated the 14th January, 1913, in reply to our letter No. 3624, dated the 30th December, 1912, and to address the Government of India upon the question of a further grant for higher teaching in this University. The Syndicate have been informed that during the current year the Government of India have been pleased to make a grant of 8 lakhs of rupees for the acquisition of what is known as the Fish Market Site. The Syndicate are deeply grateful to the Government of India for liberal financial assistance they have hitherto rendered to the University and are encouraged thereby to apply for a further substantial grant to enable them to carry out fully the recent development in University work.

In our letter, dated the 30th December, 1912, the first place was assigned to the scheme for the establishment of a University College of Science for the promotion of higher teaching in different branches of Physical and Natural Science. The Syndicate pointed out that in furtherance of this object Sir Taraknath Palit had made a gift of money and land to the extent of 15 lakhs of rupees and that the University had undertaken to supplement this unique gift by a contribution of two and a half lakhs from its limited Reserve Fund. The Syndicate entertained the hope that under these circumstances the Government of India might suitably supplement and thereby accord recognition to this princely gift, but they were disappointed to find that money was not available for this purpose. Since then Dr. Rashbehary Ghose has made a gift of 10 lakhs of rupees for the foundation of Professorships and Studentships in connection with the proposed University College of Science. The Syndicate venture to urge upon the Government of India that a claim has now been fully established for a generous contribution from the State in furtherance of the University College of Science. They further desire me to point out that the foundation of a University College of Science for Post-Graduate Studies and Research is one of the foremost needs of the University. There is only one College, namely, the Presidency College, which is affiliated in Physics and Chemistry up to the standard of the M.A. and M.Sc. Examinations, but it must be noted that the Presidency College, in spite of its new Laboratories, has very limited accommodation for Post-Graduate students and is not able to take in more than 10 students in Chemistry and 18 students in Physics every year. Apart, therefore, from the obvious importance of increased facilities for the scientific training of qualified students in this country, it is plain that there does not exist in this University adequate provision for the training of the numerous lecturers and demonstrators required for the efficient management of the Colleges affiliated in scientific subjects. In our letter of the 30th December, 1912, it was stated that the estimated cost of the project for the establishment of a University College of Science was 15 lakhs of rupees; the Syndicate have carefully reconsidered the matter and have come to the conclusion that a smaller sum would not be sufficient to secure that efficiency for the institution, which must, for obvious reasons, be its principal characteristic. The laboratory building, of which the plans are ready, will cost at least 5 lakhs of rupees; the hostel which is proposed to be attached to it, will cost not less than 2 lakhs of rupees; the equipment will, on the most moderate estimate, cost 5 lakhs of rupees; a suitable scientific library cannot be created for less than 2 lakhs of rupees, if complete sets of important periodicals and publications of learned societies have to be brought together, while at least 1 lakh will be required for additional land. It is not suggested that the whole of this money, if available, may be utilised in the course of twelve months, but it is eminently desirable that an idea should be formed of the minimum requirements of the entire scheme which it may take two or possibly three years to complete.

The second point to which I am directed to invite the attention of the Government of India is the development of Post-Graduate teaching apart from Science, in this University. A statement on this subject was made before the Senate by the Hon'ble the Vice-Chancellor on the 27th September last and a copy thereof is annexed to this letter. The most urgent need of the University in this respect is the further extension of the University Buildings. For this purpose, the Fish Market Site may be suitably utilised. The Syndicate have taken up the matter in earnest and plans have already been prepared for extension of the University Buildings which, when completed, will give ample accommodation for the classes held by the University Professors and Lecturers and will enable the University to assign to individual Professors, rooms suitably fitted up for study and research. There will also be space for further and much needed extension of the University Library and finally, arrangements will be made for the residence of 200 Post-Graduate students on the premises. The cost of the building is estimated at 10 lakhs of rupees. The Syndicate would further suggest that land should be acquired in the neighbourhood of the Senate House for play-ground for University students as well as the students of the University Law College specially those resident in the Hardinge Hostel; and there is no reason why such play-ground should not also be used by the members of the Calcutta University Institute. For this purpose a sum of 4 lakhs may be required, and it may be mentioned that suitable land may, without difficulty, be acquired towards the East of the College Square. The Syndicate would also ask that a sum of 2 lakhs may be granted for further additions to the University Library, to which access is now sought by a large number of Post-Graduate students.

The last point to which I am directed to invite the attention of the Government of India is the question of a substantial increase of the recurring grant to the University; the Syndicate gratefully acknowledge, that the present grant is handsome, but they desire me to represent that it has proved inadequate for the rapidly growing needs of higher teaching and research in the University. The annual recurring grant at present stands as follows:—

	Rs.
Inspection of Colleges	25,000
Travelling Expenses of Fellows ...	5,000
University Law College	20,000 10,000
Hardinge Professor of Mathematics ...	12,000
King George V Professor of Philosophy ...	12,000
Sir Taraknath Palit Laboratory ...	12,000
University Readers	4,000
Post-Graduate Teaching	15,000

The *additional* annual grant which the Syndicate consider essential is as follows:

	Rs.
Post-Graduate Teaching	50,000
Sir Taraknath Palit Laboratory ...	36,000
University Readers	20,000
University Librarian	6,000

	Rs.
Secretary to the Governing Body for Post-Graduate Teaching.	6,000
Professor of Modern History ...	12,000
Professor of Mahomedan (Mediæval) Indian History.	12,000
Professor of Astronomy	12,000
Professor of Botany	12,000
Professor of Zoology	12,000
Professor of Jurisprudence	12,000

With regard to each of these claims, brief explanations may be submitted. The number of Post-Graduate students has increased to such an extent that our Lecturers must be increased in number, and if their services are to be continuously retained, (which indeed is a condition absolutely essential for the successful working of our scheme of higher teaching), they must be better paid and better prospects should be held out to them. It is obvious that the recurring expenditure for the Laboratory in connection with the University College of Science which will be used exclusively for Post-Graduate studies and research, will even at the most moderate estimate, considerably exceed Rs. 1,000 a month (the amount of the present grant) and an additional sum of Rs. 3,000 a month, cannot be deemed by any means too liberal, when it is remembered that there will be at least six University Professors at work with research student under them. For University Readers, the University requires considerably more than the sum at present allotted (Rs. 4,000 a year). Experience has shown that scholars and investigators of the first rank cannot be induced to come out and stay for even a limited period to deliver a special course of lectures, for any sum less than £300 to £400, and, in one case, the University had to pay as much as £600 besides travelling expenses. The additional sum of Rs. 20,000 now asked for will enable the University to secure the services of 3 or 4 distinguished Readers every year as also to arrange for the publication of their lectures. The University also requires the services of a competent whole-time Librarian to look after and catalogue our increasing collection of books. We also require the services of a competent Professor to look after the arrangements for the Post-Graduate Teaching of more than a thousand students. Finally, the University requires 6 additional Chairs, one for each of the following subjects in which there is considerable demand for higher teaching: Modern History, Indian History (Mahomedan Period), Jurisprudence, Astronomy, Botany and Zoology. The Syndicate ask me to submit that this portion of their proposals has strong claims to sympathetic consideration by the Government of India. They desire me to point out that of the 14 Chairs of the University, 3 have been founded by the Government of India, 4 are maintained by the University, while 7 have been established by private munificence, as will appear from the following list:

Government of India.

1. Minto Professor of Economics.
2. Hardinge Professor of Mathematics.
3. King George V Professor of Philosophy.

University Funds.

1. Carmichael Professor of Ancient Indian History and Culture.
2. Professor of Comparative Philology.
3. Professor of English.
4. A Second Professor of English.

Prasannakumar Tagore.

1. Professor of Law.

Sir Taraknath Palit.

1. Professor of Physics.
2. Professor of Chemistry.

Dr. Rashbehary Ghose.

1. Professor of Applied Mathematics.
2. Professor of Physics.
3. Professor of Chemistry.
4. Professor of Botany.

In conclusion, the Syndicate desire me to emphasise what was stated in the concluding paragraph of our letter, dated the 30th December, 1912, namely, that this University is entitled to special consideration by reason of the determined and sustained efforts successfully made to carry out loyally the reforms contemplated by the Indian Universities Act of 1904 and they venture to repeat the hope previously expressed that the Government of India will not be reluctant to place adequate funds at their disposal to enable them to develop the important work already begun and to place it on a permanent basis."

REPORT

OF THE

COMMITTEE

APPOINTED BY THE SENATE

ON THE

25th MARCH 1922

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REPORT

We, the members of the Committee, appointed by the Senate on the 25th March, 1922, to consider a letter from the Government of Bengal on the subject of a resolution moved in the Bengal Legislative Council on the 29th August, 1921, have the honour to submit our report.

The resolution was in the following terms:

"This Council recommends to the Government that, with a view to determine what financial assistance, if any, should be given to the Calcutta University, a committee, consisting of two financial experts, and two members of the Senate, to be nominated by the Government, and three non-official members of this Council not holding any office in the University, to be elected by the Council, be appointed at an early date to enquire into and report on the general working of the University, in particular its financial administration, and recommend such urgent measures or reforms as may be necessary."

This resolution was adopted by a majority of 55 against 41, and it contemplates the appointment of a Committee to enquire into and report on the general working of the University, in particular its financial administration. Consequently, amongst the various points which require to be considered in connection with the resolution and the speeches made on the subject, the foremost place must be assigned to the question of the position of the University in relation to the Government and the Council, and we will accordingly examine it in the first place.

CONSTITUTION

The University of Calcutta is a Corporation created by Statute, and its privileges and obligations must be determined by reference to the statutory provisions which will be found set out in Act II of 1857 (the Act of Incorporation) and Act VIII of 1904 (the Indian Universities Act). These enactments have been amended from time to time, and, in their amended form, are printed in the volume of Regulations published by the University.

The constitution of the Body Corporate of the University is defined in Section 1 of the Act of Incorporation and Section 4 of the Indian Universities Act. The Body Corporate consists of

(*a*) the Chancellor,
(*b*) the Vice-Chancellor,
(*c*) the Ex-officio Fellows,
(*d*) the Ordinary Fellows,
  (*i*) elected by Registered Graduates,
  (*ii*) elected by the Faculties, and
  (*iii*) nominated by the Chancellor.

These persons constitute the Senate of the University.

Section 8 of the Act of Incorporation, which authorises the Chancellor, Vice-Chancellor and Fellows to superintend the affairs of the University, is in the following terms :

"*The Chancellor, Vice-Chancellor and Fellows, for the time being, shall have the entire management of and superintendence over the affairs, concerns, and property of the said University; and, in all cases unprovided for by this Act, it shall be lawful for the Chancellor, Vice-Chancellor and Fellows to act in such manner as shall appear to them best calculated to promote the purposes intended by the said University.*"

Section 4 of the Act of Incorporation provides that the Governor of Bengal, for the time being, shall be the Chancellor of the University. The Governor General of India was the Chancellor of the University till the amendment of the Act of Incorporation in 1921.

The Vice-Chancellor is, under Section 5 of the Act of Incorporation, nominated by the Local Government of Bengal. The Vice-Chancellor was nominated by the Governor General of India in Council before the amendment of the Act of Incorporation in 1921.

The number of Ex-officio Fellows cannot exceed ten, as laid down in the proviso to Section 5 (2) of the Indian Universities Act. The list of Ex-officio Fellows may be modified by the Government by notification in the Gazette. The expression "the Government" now means the Local Government; [Section 2 (2) (*b*) of the Indian Universities Act]. Before the amendment of 1921, the expression meant, in the case of the University of Calcutta, the Governor General in Council.

The list of Ex-officio Fellows at present is as follows :

His Excellency the Governor of Assam.

The Chief Justice of the High Court of Judicature at Fort William in Bengal.

The Lord Bishop of Calcutta and Metropolitan of India.

The Member of the Council of the Governor General in charge of the Department of Education.

The Minister for Local Self-Government, Bengal.

The Minister for Education, Bengal.

The Minister for Agriculture and Industries, Bengal.

The Minister for Education, Assam.

The Director of Public Instruction, Bengal.

The Director of Public Instruction, Assam.

This list, it will be noticed, includes the Member of the Council of the Governor General in charge of the Department of Education, the Minister for Education in Bengal, and the Minister for Education in Assam. Consequently, the Minister for Education in Bengal is one of the ten Ex-officio Fellows in the same way as the Member of the Council of the Governor General in charge of the Department of Education and the Minister for Education in Assam.

The position thus is that the entire management of and superintendence over the affairs, concerns, and property of the University is vested in the Chancellor, Vice-Chancellor and Fellows, and it is lawful for them, in all cases unprovided for by Statute, to act in such manner as shall appear to them best calculated to promote the purposes intended by the University. No Fellow, Ex-officio or Ordinary, has any special power or privilege.

The Chancellor has the power to nominate Ordinary Fellows, subject to the restrictions and qualifications mentioned in Sections 6, 9, and 10 of the Indian Universities Act; he may, under Section 11, declare vacant the office of an Ordinary Fellow who has not attended a meeting of the Senate during the period of one year. The Chancellor may also nominate any person possessing the prescribed qualification to be an Honorary Fellow for life under Section 13 (2). His assent is, under Section 17, necessary when an Honorary Degree is proposed to be conferred by the Senate. Confirmation by him is also necessary when it is proposed, under Section 18, to cancel a Degree or Diploma.

The consent of the Vice-Chancellor is necessary, under Section 17, when an Honorary Degree is proposed to be conferred.

Under Section 15, the Executive Government of the University is vested in the Syndicate; the Vice-Chancellor is Ex-officio the Chairman of the Syndicate. The Vice-Chancellor has emergency powers under Section 6 of Chapter IV of the Regulations.

We now pass on to the points of contact between the Government and the University, so far as they are mentioned in the Act of Incorporation and the Indian Universities Act.

Under the second paragraph of Section 8 of the Act of Incorporation, as it originally stood, the Chancellor, Vice-Chancellor and Fellows were authorised to make and alter, from time to time, bye-laws and regulations touching all matters whatever regarding the University. These bye-laws and regulations, however, could be operative only after they had received the approval of the Governor General of India in Council. This provision has been replaced by Section 25 of the Indian Universities Act, which empowers the Senate to make regulations from time to time with the sanction of the Government. As already pointed out, till the amendment of 1921, the expression "the Government" meant the

Governor General in Council, and it now means the Local Government.

Another matter which brings the University into touch with the Government is the affiliation and disaffiliation of Colleges. The provisions on this subject are embodied in Sections 21, 22, and 24 of the Indian Universities Act. The final order on all applications for affiliation and disaffiliation, after they have been considered by the Syndicate and the Senate, can be passed only by the Government to whom all the papers are required to be submitted by the Registrar.

Under Section 7 of the Act of Incorporation, the Government may cancel the appointment of any person as Fellow.

It is plain that, except upon questions of change of Regulations, and the affiliation and disaffiliation of Colleges, and a further matter presently to be mentioned, the Senate, composed of the Chancellor, Vice-Chancellor and Fellows, is constituted a self-contained Corporation and is vested with the entire management of and superintendence over the affairs, concerns, and property of the University, and no interference on the part of the Government, much less of any member thereof, is contemplated. In this connection, it may be pointed out that the Senate is under no legal obligation to furnish reports, returns, or other information. Reference may be made to Section 23 of the Indian Universities Act, which makes it obligatory upon every affiliated College to furnish such reports, returns, and other information as the Syndicate may require to enable it to judge of the efficiency of the College. No power, however, is reserved to the Government to call for reports, returns, and other information from the Senate. The reason for this will be obvious to all persons familiar with University administration. There are many matters connected therewith, specially with the conduct of examinations, which no University should be called upon to disclose. We do not suggest, however, that because the University is not under a legal obligation to furnish reports, returns, and other information, it should necessarily decline to do so. Much may be and is gained by publicity in suitable cases, but what should be distinctly understood is that such information cannot be demanded as a matter of right.

The point which has been reserved above for consideration, arises on Section 15 of the Act of Incorporation. The section, as enacted in 1857, was in the following terms:

"The said Chancellor, Vice-Chancellor and Fellows shall have power to charge such reasonable fees for the degrees to be conferred by them, and upon admission into the said University, and for continuance therein, as they, with the approbation of the Governor General of India in Council, shall, from time to time, see fit to impose. Such fees shall be carried to one General Fee Fund for the payment of expenses of the said University, under the direction and regulations of the Governor General of India in Council, to whom the accounts of income and expenditure of the said University shall, once in every year, be submitted for such examination and audit as the said Governor General of India in Council may direct."

The section was amended in 1921, when the expression "Governor General of India in Council" was replaced by the expression "Local Government of Bengal." Before we consider the extent of the power conferred on the Government by this section, it may be stated that it does not authorise what may be called "inspection." Reference may again be made to Section 23 (2) of the Indian Universities Act, which authorises the Syndicate to inspect every affiliated College from time to time. No such power is reserved to the Government in respect of the University, either under the Act of Incorporation or the Indian Universities Act, and it is manifest that the resolution under consideration really calls upon the Government to act in contravention of the constitution. This view is in complete agreement with that maintained by the Government of India, as will appear from the following question and answer in the Legislative Assembly:

"QUESTION 263. *Mr. J. Chaudhury*: (*e*) Is the Government of India aware that the University of

Calcutta is at present on the verge of bankruptcy, and do Government propose to appoint a Committee to look into its financial position and come to its rescue, pending its reconstitution on a sound educational and financial basis ? "

"ANSWER. *Mr. H. Sharp*: (*e*) Government have been informed that the financial position of the University of Calcutta is precarious. They have no intention of appointing a Committee, such as that contemplated by the Honourable Member, nor does the existing law provide for the appointment of such a Committee." (*Proceedings of the Legislative Assembly, dated the 22nd February, 1921.*)

Let us now turn to the language of Section 15, which, as we have stated, has been in operation since 1857. The fees mentioned in the first sentence of the section have to be carried into one General Fee Fund for the payment of expenses of the University under the direction and regulations of the Government. Apart from the question of the meaning of the expression "direction and regulations," it is obvious that such direction and regulations can apply only to the classes of fees specified in the first sentence, namely, (1) fees for degrees conferred by the Senate, (2) fees for admission into the University, (3) fees for continuance in the University. Under (1) comes the fee of Rs. 5 charged by the University when a degree is conferred *in absentia*; under (2) comes what is known as the Registration fee of Rs. 2; under (3) comes the fee payable by Registered Graduates. The Government is not authorised to issue "direction and regulations" in respect of other classes of fees which the University may charge or other kinds of income which the University may possess. Further, if "direction and regulations" are issued by the Government, they must not conflict with the regulations otherwise made and already sanctioned by the Government, becoming thereby binding upon all members of the University. Section 15 again contemplates that the accounts of income and expenditure of the University shall, once in every year, be submitted for such examination and audit as the Government may direct. Such examination and audit, however, are contemplated to take place only once in every year, and, as a matter of fact, the examination and audit have been held annually ever since the establishment of the University. There is thus no foundation for the claim, which has sometimes been put forward, that the University is subject to general financial control by the Government or is liable to have its academic activities regulated by pressure of such control.

We have hitherto confined our attention to the provisions of the Act of Incorporation and the Indian Universities Act. There are, however, provisions in the Regulations, which also bring the University into contact with the Government. Section 8 of Chapter VIII of the Regulations makes the appointment of the Inspector of Colleges subject to the approval of the Government. Section 1 of Chapter IX enables the Senate to found a Professorship, which is to be maintained out of the funds of the University, only with the previous consent of the Government. Section 10 of Chapter IX, again, provides that no University Professor shall be appointed without the sanction of the Government. Section 8 of Chapter X provides that no University Reader shall be appointed without the sanction of the Government. Sections 12 and 13 of Chapter XI, as originally framed, provided that no University Lecturer or Junior University Lecturer should be appointed without the sanction of the Governor General in Council; these sections have now been replaced by Section 32 of Chapter XI in its new form, which provides as follows:

"No person whose salary is, or is to be, paid from funds supplied by the Government, shall be appointed or re-appointed University Lecturer, without the previous sanction of the Government. The names of all other persons appointed or re-appointed Lecturers, shall be notified to the Local Government within one week from the date of the decision of the Senate. If, within six weeks from the receipt of such notification, the Government intimate to the University that a specified appointment is objectionable on other than academic grounds, such decision shall take effect and the appointment shall stand cancelled."

It will be recalled that these Regulations, as promulgated in 1906, were made by the Government of

India in the exercise of its extraordinary power under Section 26 (2) of the Indian Universities Act. A question has been raised—but never decided—whether such provisions in the Regulations, as vest in the Government a power of control in excess of what is conferred by the Act of Incorporation or by the Indian Universities Act, are not really *ultra vires.* Section 8 of the Act of Incorporation, set out above, authorises the Chancellor, Vice-Chancellor and Fellows to act in such manner as shall appear to them best calculated to promote the purposes intended by the University, in all cases unprovided for by the Act. It has been urged that the insertion of restrictive provisions in the Regulations constitutes an encroachment upon the statutory powers vested in the Senate by Section 8. We need not on the present occasion express a final opinion on this controversy. We do not feel called upon to do so, but we must add that interference with the administration of the University in a manner not authorised by law should not be tolerated by the Senate. As the law now stands, we certainly cannot recommend to the Senate the acceptance of any position contrary to this view.

It is worthy of note that wherever the University is brought into contact with the Government, the expression formerly used was "Governor General in Council" and now used is "Government" or "Local Government." Neither the Member of the Executive Council of the Governor General in charge of Education nor the Minister in charge of Education in Bengal is mentioned or can be recognised as such. In this connection, reference may be made to the definition of the term "Local Government" contained in Sec. 134 (4) of the Government of India Act, which provides that "Local Government" means, in the case of a Governor's Province, the Governor in Council or the Governor acting with Ministers (as the case may require). The intention apparently has been that the Chancellor, who is the Head of the University, should, in his capacity as the Head of the Government, have a direct voice in the final decision of such University matters as are required by Statute to be taken up to the Government. Expressions recently used by some prsons show that the true position of the Governor (Chancellor) in this respect is apt to be overlooked or ignored; and they appear to us to be based upon an assumption not founded on the statute as it stands, which, in our opinion, is quite unambiguous and clear.

In the view we take of the unconstitutional character of the proposal embodied in the resolution, it is needless for us to dwell on its other implications. But it is a matter for legitimate comment that gentlemen, who are members of a Legislative Council under a representative form of Government, should, while claiming to elect their own representatives on the proposed Committee, deny a similar privilege to the Senate on whose work they desire to sit in judgment.

PROCEEDINGS OF THE COUNCIL

We shall now pass on to the Proceedings of the Council in respect of the resolution. We gather from the letter of the Government of Bengal, dated the 22nd December, 1921, which is set out below, that the observations of the University are invited in respect of these proceedings:

"I am directed to forward for the information of the Vice-Chancellor and the Syndicate a copy of the Resolution moved by Babu Rishindranath Sarkar regarding the appointment of a Committee *to enquire into the finances* of the Calcutta University, at the meeting of the Bengal Legislative Council held on the 29th August, 1921, together with the proceedings of the Council, pages 138-175 of the Council Proceedings, Volume V (copy enclosed). The *matter* is now under the consideration of Government and the observations of the University are invited on it." It may be remarked in passing that this letter describes the resolution as "regarding the appointment of a Committee to enquire into the finances" of the University, though the resolution itself has a far more comprehensive scope, as it contemplates the appointment of a Committee "*to enquire into and report on the general working of the University, in particular its financial administration.*" The letter further states that the *matter* is now under consideration of the Government, and the observations of the University are invited on *it*. This, as we read it, includes both the resolution and the proceedings, which are forwarded with the letter.

We cannot but observe at the outset that the proceedings which embody the speeches made by various members of the Council stand on an entirely different footing from the resolution itself. We deeply regret to have to state that the tone and language of some of the speeches made on the occasion are of a deplorable character, and it is impossible for an academic body to follow the example which has thus been set. But what is of vital importance is that many of the speeches betray a surprising ignorance of University affairs, though correct information could, if desired, have been easily gathered from the published proceedings of the University. We shall now refer to some striking instances of misapprehension of the facts.

COLLEGE OF SCIENCE AND TECHNOLOGY

One of the charges brought forward is that "the University has done very little improvement for the department of Science," and as an instance it is asserted that "the University has gradually reduced the contribution to the Science College from the Fee Fund, till, in 1920-21, it has stopped contributing anything, contrary to the terms of the trust created by Sir Taraknath Palit." This statement is contrary to the facts ; it is, indeed, so misleading that it is necessary to review in brief outline the history of the foundation and development of the University College of Science and Technology, and the part played therein by the University, the Government of India, and the Government of Bengal, respectively. We desire to emphasise that a true perspective of the situation cannot be obtained without taking into account the expenditure which has been incurred by the University in respect of the Science College since its commencement.

On the 16th March, 1912, Lord Hardinge, in his Convocation Address, announced that the

Government of India had decided to make an annual grant of Rs. 65,000 for the appointment of University Professors and Lecturers in special subjects and for the encouragement in other ways of higher studies and research. On the 29th March, 1912, the Government of India addressed a letter to the Government of Bengal, intimating, for the information of the University, that a recurring grant of Rs. 65,000 had been made and that the object of the grant was to enable the University to make a definite step forward towards the realisation of the idea of a Teaching University for higher work as also to improve the inspection of Colleges. The Syndicate intimated to the Government of Bengal that they were unanimously opposed to the appointment of an additional Inspector of Colleges, and they urged, instead, the creation of a Professorship of Chemistry in addition to the two other Chairs of Mathematics and Philosophy which had been previously suggested. The Government of Bengal, on the 31st July, 1912, strongly supported this proposal and expressed their concurrence with the opinion of the Syndicate that no provision need be made for the appointment of an additional Inspector of Colleges. On the 15th June, 1912, Mr. Taraknath Palit executed his first Trust Deed in favour of the University, transferring money and land worth about eight lakhs of rupees for the establishment of two Professorships, one of Chemistry and the other of Physics, "as a first step towards the foundation of a University College of Science and Technology." The Syndicate, accordingly, modified their proposal that Rs. 12,000 out of the Imperial Grant should be applied for the foundation of a Chair of Chemistry and recommended that the sum should be devoted to the maintenance of the Laboratory of the proposed University College of Science. On the 18th September, 1912, the Government of India sanctioned this proposal. On the 8th October, 1912, Mr. Palit made a further gift of seven lakhs of rupees. On the 30th December, 1912, the Syndicate addressed a letter to the Government of India for liberal financial assistance for the development of University work in general and of the University College of Science in particular. The second paragraph of this letter, which is printed in full in Appendix I, was as follows:

"The Government of India are no doubt aware that, in the course of the last six months, Mr. T. Palit, Bar-at-Law, has made over to the University a princely gift of money and property of the aggregate value of nearly fifteen lakhs of rupees for the purpose of founding a College of Science and for the general improvement of scientific and technical education. Under the terms of the deeds of gift, the University is bound to maintain, from the income of the endowment, a Chair of Physics and a Chair of Chemistry and to institute a scholarship to be awarded to a distinguished graduate for the study of Science in a foreign country; the University is also bound to establish a laboratory for advanced teaching and research and to contribute towards this object at least two and a half lakhs of rupees out of its own funds. But this sum is quite inadequate for the establishment of a laboratory of the kind contemplated. The Vice-Chancellor and the Syndicate are anxious that the fullest advantage should be taken of this unique opportunity to establish a residential College of Science in Calcutta, and it appears to them that, if the necessary funds are available, the object can be speedily accomplished without any difficulty. The properties vested in the University by Mr. Palit include, among others, two fine plots of land, one of 12 bighas and the other of 25 bighas in area. On the bigger plot, there are two splendid three-storied houses, recently built, which are admirably suited to accommodate 200 students. If, therefore, adequate funds were forthcoming to erect and equip the requisite laboratories and Professors' quarters on this plot, a Residential College could be set up in working order in the course of a year. The estimated cost of the project amounts to fifteen lakhs of rupees, and the Vice-Chancellor and the Syndicate do not hesitate to ask the Government of India for a grant to the University of this sum. The gift of Mr. Palit is absolutely unique in the history of University education in this country, and they feel sure that the Government of India will be glad to supplement it by at least an equal amount to enable the University to carry out the scheme in its entirety, specially in view of the fact that the University has already agreed to contribute two and a half lakhs out of its own very limited savings. I am desired to add that a sympathetic and generous attitude on the part of the Government of India towards the object which Mr. Palit had at heart, cannot fail greatly to influence public sentiment and may not improbably induce other wealthy gentlemen to found similar endowments for the encouragement of higher teaching."

On the 14th January, 19'3, the following reply was received:

"The Government of India are not yet aware what grants, if any, they will be able to assign for education during the ensuing financial year. But I am to say that the requests of the Calcutta University will receive consideration in conjunction with the claims of other Universities and other branches of education."

On the 8th August, 1913, Dr. Rashbehary Ghose offered to place at the disposal of the University a sum of ten lakhs of rupees in furtherance of the University College of Science and for the promotion of scientific and technical education by the establishment of four Professorships of Applied Mathematics, Physics, Chemistry, and Botany with special reference to Agriculture. The Syndicate, encouraged by this munificent gift, again addressed a letter to the Government of India on the 4th October, 1913, and pressed for a substantial grant in aid of the University College of Science. The second paragraph of this letter, which is printed in full in Appendix II, was as follows:

"In our letter, dated the 30th December, 1912, the first place was assigned to the scheme for the establishment of a University College of Science for the promotion of higher teaching in different branches of Physical and Natural Science. The Syndicate pointed out that in furtherance of the object, Sir Taraknath Palit had made a gift of money and land to the extent of 15 lakhs of rupees and that the University had undertaken to supplement this unique gift by a contribution of two and a half lakhs from its limited Reserve Fund. The Syndicate entertained the hope that, under these circumstances, the Government of India might suitably supplement and thereby accord recognition to this princely gift, but they were disappointed to find that money was not available for this purpose. Since then, Dr. Rashbehary Ghose has made a gift of 10 lakhs of rupees for the foundation of Professorships and Studentships in connection with the proposed University College of Science. The Syndicate venture to urge upon the Government of India that a claim has now been fully established for a generous contribution from the State in furtherance of the University College of Science. They further desire me to point out that the foundation of a University College of Science for Post-Graduate Studies and Research is one of the foremost needs of the University. There is only one College, namely, the Presidency College, which is affiliated in Physics and Chemistry up to the standard of the M.A. and M.Sc. Examinations; but it must be noted that the Presidency College, inspite of its new laboratories, has very limited accommodation for Post-Graduate students and is not able to take in more than 10 students in Chemistry and 18 students in Physics every year. Apart, therefore, from the obvious importance of increased facilities for the scientific training of qualified students in this country, it is plain that there does not exist in this University adequate provision for the training of the numerous lecturers and demonstrators required for the efficient management of the Colleges affiliated in scientific subjects. In our letter of the 30th December, 1912, it was stated that the estimated cost of the project for the establishment of a University College of Science was 15 lakhs of rupees; the Syndicate have carefully reconsidered the matter and have come to the conclusion that a smaller sum would not be sufficient to secure that efficiency for the institution, which must, for obvious reasons, be its principal characteristic. The laboratory building, of which the plans are ready, will cost at least five lakhs of rupees: the hostel which is proposed to be attached to it, will cost not less than two lakhs of rupees; the equipment will, on the most moderate estimate, cost five lakhs of rupees; a suitable scientific library cannot be created for less than two lakhs of rupees, if complete sets of important periodicals and publications of learned societies have to be brought together; while at least one lakh will be required for additional land. It is not suggested that the whole of this money, if available, may be utilised in the course of twelve months, but it is eminently desirable that an idea should be formed of the minimum requirements of the entire scheme which it may take two or possibly three years to complete."

On the 27th November, 1913, the Government of India replied that the Imperial funds available for education that year had already been allotted. On the 4th December, 1913, the University pointed out that the Syndicate had no intention to ask for a grant out of the funds available during the then current financial year; but that their object was to place before the Government, as early as October, a statement of their pressing needs so as to enable the Government to take it into consideration when framing its budget estimates for the following year. On the 23rd December, 1913, the Government of India replied that, when funds were available, the request of the University for further grants for higher teaching would be considered in conjunction with other demands.

Although financial assistance from the Government of India was thus not forthcoming, the University authorities did not feel quite discouraged, inasmuch as hopes had been held out that their request "for further grants for higher teaching would be considered." The scheme for the foundation of a University College of Science could not be abandoned, as the acceptance of the generous gifts of Sir Taraknath Palit and Sir Rashbehary Ghose had imposed upon the University an obligation to provide for laboratories, workshops and other equipments. The foundation-stone of the building, designed for the University College of Science, was, accordingly, laid on the 27th March, 1914, and the University proceeded to meet the cost of erection from the Reserve Fund, formed out of the surplus of examination fees realised from candidates of all grades in different stations of life from every corner of the

Province. Unforeseen difficulties, however, arose. The outbreak of the Great War led to a sudden and phenomenal depreciation of the Government securities in which the Reserve Fund had been invested. Accordingly, on the 1st December, 1914, the Syndicate applied to the Government for a temporary loan against these securities, as their sale at the prices then current would entail heavy loss upon the University. On the 16th March, 1915, the application was refused; the result was that the securities were sold in the open market at a loss of nearly forty thousand rupees. We cannot overlook that, in their letter, for the first time, the Government stated that they felt themselves unable to consider this or any other request regarding these matters, unless they received a clear statement of the general policy of the University in this respect and of the proposed College of Science in particular. It is unnecessary to set out here the correspondence which thereupon ensued between the University and the Government of India; the relevant documents have already been printed and will be found in the Appendix to the Minutes of the Senate, dated the 3rd January, 1920. It is sufficient for our present purpose to state that the ultimate result of a protracted correspondence was that, on the 9th August, 1917, the Government of India sent the following intimation to the University:

"In reply I am to say that the Government of India propose to defer consideration of the question of granting financial assistance in this connection to the University, pending receipt of the recommendations of the proposed Calcutta University Commission."

Notwithstanding this regrettable attitude of the Government of India, the University steadily proceeded with the work of the College of Science and Technology. The adoption of this course was fully justified by an event which followed. On the 22nd December, 1919, Sir Rashbehary Ghose offered to place at the disposal of the University three and a half per cent. Government securities of the nominal value of Rs. 11,43,000, which would produce an annual income of Rs. 40,005, to be applied exclusively for

UNIVERSITY COLLEGE OF SCIENCE.

Year	Palit Professors, Asst. Professors, and Assistants.	Ghose Professors, Demonstrators, and Draughtsmen.	Palit Research Scholars.	Ghose Research Scholars.	Professors, Lecturers, Laboratory Assistants, and Menials.	Books and furniture.	Physics Department.	Chemistry Department.	Applied Mathematics Department.	Botany Department.	Zoology Department.	Experimental Psychology Department.	Bio-Chemistry Department.	Workshop.	Gas and Electricity.	Buildings.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.
1912-13	...	...	...	...	1,977	...	...	...	...	...	...	...	...	...	...	...	1,977
1913-14	...	2,829	...	...	3,600	567	...	11,130	...	...	...	...	...	...	...	29,135	47,261
1914-15	...	22,080	...	1,575	3,600	...	...	1,575	...	...	...	...	...	...	...	2,32,621	2,61,451
1915-16	...	25,200	5,525	3,675	1,986	...	...	23,030	...	...	...	...	...	...	...	34,201	93,617
1916-17	13,573	25,200	11,750	6,600	9,844	6,995	23,375	11,261	10	...	...	3,041	2,988	...	968	33,966	1,49,571
1917-18	28,106	25,200	4,525	5,475	39,590	2,293	51,375	47,016	10	23,374	6,000	3,639	1,366	13,852	1,818	52,518	3,05,657
1918-19	29,917	24,074	4,791	5,591	81,866	8,303	12,863	23,420	156	30,500	12,132	1,463	11	665	2,275	11,263	2,49,290
1919-20	32,940	24,000	5,725	4,836	71,012	12,235	18,910	14,688	62	9,018	16,153	2,161	2,532	121	2,389	2,836	2,19,618
1920-21	34,947	41,658	5,425	4,875	1,00,460	8,472	17,207	26,171	1,384	14,678	6,845	4,284	1,245	5,045	3,527	4,400	2,80,623
1921-22	37,921	44,663	3,950	7,682	86,083	4,597	6,267	21,926	96	21,149	1,312	10,580	52	1,438	3,971	1,403	2,53,090
TOTAL	1,77,404	2,34,904	41,691	40,309	4,00,018	43,462	1,29,997	1,80,217	1,718	98,719	42,442	25,168	8,194	20,621	14,948	4,02,343	18,62,155

The above statement shows that the total expenditure on the University College of Science and Technology up to 30th June, 1922, has been Rs. 18,62,155. This sum has been contributed as follows:

		Rs.
1.	Contribution from the annual Government of India Grant of Rs. 65,000 ...	1,20,000
2.	Contribution from Sir Taraknath Palit Fund ...	2,98,095
3.	Contribution from Sir Rashbehary Ghose Fund	3,78,166
4.	Tuition fees from students	66,685
5.[*]	Contribution from the Fee Fund of the University	9,99,209
	TOTAL Rs.	18,62,155

What we desire to emphasise is that, while the University has contributed from its Fee Fund nearly ten lacs of rupees to supplement the tuition fees and the income of the Palit and Ghose funds, only one lac and twenty thousand rupees have been contributed by the Government of India in ten years from the public funds. There is no room for controversy as to the fact that the financial embarrassment of the University is attributable very largely to the expenditure on the College of Science. The position would have been entirely different if the Government of India had, even in some measure, fulfilled its obligation to the cause of development of higher studies by rendering liberal financial assistance to the University in recognition of the unparalleled gifts of Sir Taraknath Palit and Sir Rashbehary Ghose. To select the figures for recent years and to confine our attention to them alone, cannot but create a misleading impression as to the part played by the University and the Government respectively in the matter of the establishment of a University College of Science and

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[*] Out of this sum Rs. 34,738-2-8 was contributed from the Fee Fund during 1920-21 for purposes of the Laboratory (in addition to the sum contributed for the salary of University teachers in the Department of Science). The allegation made to the contrary by one of the speakers is untrue.

Technology for advanced instruction and research. It may be maintained without fear of contradiction that now, under the auspices of the University, higher instruction in scientific subjects is imparted and research work of recognised value is carried out on a more adequate scale than had been found practicable when the matter was exclusively in the hands of the Local Government with all its resources. One learned Member of the Council, with an impressive air of erudition, did, indeed, quote a number of subjects, which, in his opinion, should have been undertaken by the University, such as "Mining, Agriculture, Industry, Commerce, Entomology, Nautical Science, Forestry, Metallurgy, Science of Leather Industries or of Textile Industries." We are unable to surmise whether this list is based on the enumeration of subjects which the University Commission considered it advantageous or desirable for an Indian University to undertake, as funds should become available. (Vol. V, p. 286.)* The member of the Legislative Council did not, however, indicate who should provide the necessary funds, and was perhaps not aware that in two at least of these subjects—Agriculture and Commerce—the University had staff ready for work, and that in one of them—Commerce—work had already been commenced by the University, notwithstanding financial stringency.

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* The speaker apparently did not appreciate the importance of creation and maintenance of University Chairs even in the studies of his choice, for he proceeded to remark, "what useful purpose will be served by the creation of these Chairs, one fails to understand; creation of Chairs for higher studies dissociated from preliminary and secondary courses is worse than placing a marble dome on a mud-built wall." The speaker could not have been aware that experience has already shown that new departments of study are most effectively organised under the guidance of University Professors; this applies as much to development of studies of University grade as to the training of teachers as a necessary preliminary to the introduction of the subjects in secondary and primary stages. That the importance of the improvement of secondary courses is fully realised by the University is clear from the action already taken by the Senate for reconstruction of the Matriculation Examination. The destruction of "a marble dome," where it exists, may amuse the iconoclast; but what should appeal most to "people's representatives" is to maintain the marble dome and to provide money for the substitution of stone for "mud" walls as early as practicable.

At this point it is our duty to draw attention to events which happened during the last year. On the 5th February, 1921, the Registrar, under the instruction of the then Vice-Chancellor (approved by the Syndicate on the 11th February, 1921), addressed the following letter to the Government of Bengal, asking for financial assistance towards the development of higher teaching in the University, specially technological and agricultural instruction:

'I am directed by the Vice-Chancellor and Syndicate to request you to place before the Hon'ble the Minister in charge of Education this application for financial assistance for the development of teaching work in accordance with the recommendations of the Calcutta University Commission.

Paragraph 54 of Chapter LI of the Report of the Commission (Vol. V, pp. 282-83) is in these terms :

"The post-graduate scheme described in Chapter XV is carried on at a cost of more than 5 lakhs of rupees, of which Rs. 1,25,000 is derived from lecture fees. The Government of India has contributed towards the cost, first, by founding three chairs and two readerships at an annual cost of Rs. 40,000; and secondly, by a grant of Rs. 15,000 for the post-graduate classes in general. The balance, more than half of the total, is taken from the general funds of the University, which are, in fact, derived almost wholly from the profits on examinations. Fees at the Matriculation, Intermediate, and B. A. Examinations have been increased in order to meet these charges. The 138 full-time University Lecturers who provide the bulk of the instruction are paid salaries, varying in amount, which average Rs. 225 per mensem or £180 per annum. The funds do not permit these salaries to be increased, nor is any superannuation scheme provided; it is, consequently, difficult to retain the services of some of the abler teachers. It would demand an additional expenditure of about 1¼ lakhs to increase the average salary to Rs. 300, which is not excessive for this grade of work, seeing that we have suggested Rs. 200 as the average for those of the College Teachers who are not Heads of Departments."

The recommendation of the Commission has received additional strength from recent events. It has been brought to the notice of the Vice-Chancellor that appointments in the Dacca University have been offered to members of the Calcutta University staff on much higher salaries than the Calcutta University has found it hitherto possible to pay them. To take one illustration, a member of the Post-Graduate staff in Philosophy, who is in receipt of a salary of Rs. 300, has been offered an appointment in the Dacca University on a minimum salary of Rs. 500 with periodical increments. The Vice-Chancellor and Syndicate are not able to appreciate the justification for placing public funds at the disposal of the Dacca University authorities, with the inevitable result that they are enabled to take away members of the Post-Graduate staff by offer of higher salaries. If public funds are available for development of higher teaching in Bengal, the Calcutta University is manifestly entitled to a fair share thereof. I am, accordingly, directed to request that a grant of one and a quarter lakhs be made for salaries of the Post-Graduate staff during the session 1921-22, as recommended by the Commission.

I am, further, directed to request that a capital grant of Rupees Ten Lakhs may be made for extension of Technological studies, as recommended by the Commission in Paragraph 75 of Chapter LI of their Report. The Government of Bengal are, no doubt, aware of the organisation which exists in the University College of Science and Technology for teaching in Science, Pure and Applied. The College of Science owes its existence in the main to the munificence of the late Sir Taraknath Palit and the Hon'ble Sir Rashbehary Ghose. The gift made by the former (money and land) is worth 15 lakhs of rupees; the endowment created by the latter exceeds 20 lakhs of rupees. The income of the two endowments has to be applied principally in the maintenance of eight Chairs and sixteen Research Students. The Chairs are now held by scholars of the highest academic distinction:

Palit Professor of Chemistry	Sir P. C. Ray, Kt., Ph.D., D.Sc., C.I.E., F.C.S.
Palit Professor of Physics	Mr. C. V. Raman, M.A.
Ghose Professor of Applied Mathematics.	Dr. S. K. Banerjee, D.Sc.
Ghose Professor of Chemistry	Dr. P. C. Mitter, M.A., Ph.D. (Berlin).
Ghose Professor of Physics	Dr. D. M. Bose, M.A., B.Sc., Ph.D. (Berlin).
Ghose Professor of Agricultural Botany.	Dr. S. P. Agharkar, M.A., Ph.D. (Berlin).
Ghose Professor of Applied Physics.	Dr. P. N. Ghosh, M.A., Ph.D.
Ghose Professor of Applied Chemistry.	Dr. H. K. Sen, M.A., D.Sc. (London).

The balance of the income of these endowments, which is left after payment of the salaries of these Professors and of scholarships to the research students, is quite inadequate for equipment of the respective Laboratories. The University has, consequently, found it necessary to devote a large portion of its current income from year to year to the construction of the Laboratory buildings, and the equipment of the Laboratories. Some idea of the sums which have been spent by the University will be gained from the following statement:

	Rs.
Cost of erection of Palit Laboratory Building at 92, Upper Circular Road ...	3,89,427
Equipment for the Laboratory (Physical, Chemical, and Biological) ...	3,34,382
TOTAL	7,23,809

Besides this, the University maintains two Chairs, one for Botany, and the other for Zoology. The former is held by Dr. P. Brühl, D.Sc., who is on the grade of Rs. 800-50-1,000, and the latter, by Mr. S. Maulik, M.A. (Cantab.), who is on the grade of Rs. 600-50-800. To carry on the work in each Department, the University has found it necessary to employ a number of Assistant Professors, Lecturers, and Demonstrators, whose aggregate salary amounts to Rs. 3,525 per month. Notwithstanding all these arrangements, the University has found it impossible to undertake instruction in Technology and Applied Science on anything approaching an adequate scale. This is a matter for deep regret, specially in view of the fact that the last gift of the Hon'ble Sir Rashbehary Ghose was made expressly for development of technological teaching, and the Chair of Botany first created by him was expressly intended for improvement of agricultural instruction. The authorities of the Science College have had ready for some time past a carefully prepared programme of work for the development of technological instruction, and its outline may be set forth here for information of Government:

	Rs.
(A) Applied Chemistry	4,65,000
(B) Applied Physics	2,10,000
(C) Applied Botany (including Agriculture)	2,00,000
(D) Library of the Science College ..	1,25,000
TOTAL	10,00,000

In Chemistry (A), the most essential need is an adequate workshop: this, it is estimated, will cost Rs. 2,25,000, namely, Rs. 75,000 for building and Rs. 1,50,000 for appliances. It is proposed to undertake instruction in Chemistry of Leather and Chemistry of Dyes. Besides this, it is proposed to have arrangements for practical instruction in the manufacture of some of the following:

Sulphuric Acid, Glass, Paper and Pulp, Lime, Mortar and Cement, Sugar, Soap, Candle and Glycerine, Paints and Pigments, and Oils. Apart from these, factory appliances, like disintegrators, centrifugals, filter-presses, hydraulic presses, vacuum pans, etc., would be indispensable. These would require a grant of 2 lakhs of rupees to enable the College authorities to make a good beginning. Finally, at least Rs. 40,000 would be needed for even a small laboratory for technical analysis. This brings up the figure for the Department of Chemistry to Rs. 4,65,000

In the Department of Applied Physics (B), it is intended to undertake work in Applied Electricity, in the testing and standardisation of instruments, in Applied Optics (including Illumination Engineering), in Pyrometry, and in Applied Thermo-Dynamics (including a study of the efficiency of different types of Heat Engines). An estimate of Rs. 2,10,000 is manifestly a very modest demand for so important a work.

In the Department of Botany (C), it is intended to undertake instruction in Agriculture. The most urgent need is an experimental farm, which need not be situated in the immediate neighbourhood of Calcutta. A site in some place easily accessible by rail will meet the needs of our students. The acquisition of land and the construction and equipment of a farm will cost at least a lakh of rupees. Another one lakh will enable the University Professors to complete the arrangements which have already been begun in Palit House at 35 Balligunj Circular Road.

The remaining item (D) is the Library of the University College of Science. For purposes of instruction on the most modern lines in such subjects as Chemistry, Physics, and Botany, it is absolutely essential to acquire the chief journals and standard works of reference. A sum of Rupees One Lakh and Twenty-five Thousand will enable the University to procure not all, but many, of the most pressing requisites.

It is obvious that a recurring grant would be needed for the purpose of carrying out efficiently the work of technological and agricultural instruction from year to year. The Vice-Chancellor and Syndicate do not, however, press for a recurring grant during the ensuing session, and they will be content to utilise the capital grant, which may be placed at their disposal, with the assistance of their present staff.

The Vice-Chancellor and Syndicate, accordingly, request that provision may be made for a capital grant of Rupees Ten Lakhs for the development of technological studies in connection with the University College of Science, in addition to the grant of Rupees One Lakh and Twenty-five Thousand for the salary of Post-Graduate Teachers.'

To this letter the Government of Bengal replied on the 15th November, 1921, in the following terms :

"I am directed to refer to your letter No. G-345, dated the 5th February, 1921, in which you ask for a grant of Rs. 1,25,000 for improvement of the Post-Graduate Department of the Calcutta University and a capital grant of Rs. 10,00,000 for extension of technological studies. Both these proposals are based on the recommendations of the Calcutta University Commission's Report.

The present financial condition of the Government of Bengal is well-known to the Calcutta University. The University is, no doubt, aware that representations were made by this Government to the Government of India about the need of improving the finances of the Province. It was not possible to reply to your letter until the Government of India had considered these representations, and the relief since granted by the Government of India is so inadequate that unless fresh sources of revenue are made available, very drastic retrenchments will have to be undertaken in all Departments. The University will, therefore, realise that there is no immediate prospect of carrying into effect the recommendations of the Sadler Commission. The Government of Bengal, however, propose shortly to address the Government of India, protesting against the inadequacy of financial relief, as, among other consequences, inevitably leading to the postponement of University reforms on the lines of the Sadler Commission's report. The Government of Bengal in the Ministry of Education regret to say that, as, in their present financial position, reforms on the lines of the Sadler Commission's Report cannot possibly be contemplated, they are unable to grant either of the requests contained in the letter under reply. Government further desire to take this opportunity of suggesting that, in the present critical financial position both of the University and of the Government, the University may find it desirable not to try to expand its activities till fresh sources of revenue are made available to it.

I am to add that, although the Calcutta University has made no representation to Government about the necessity of relief for its immediate needs, the attention of Government has been drawn to its critical and embarrassing financial position from the published proceedings and reports. Under certain conditions and subject to certain contingencies the Government of Bengal are willing to help the Calcutta University to extricate itself from its more immediate financial embarrassments and any representation for assistance on a modest scale which the Calcutta University desires to place before the Government will be sympathetically considered.

Finally, I am to say that, although for the reason stated above, no formal reply could be earlier given to the letter under reply, the provisional views of Government were verbally communicated to responsible authorities of the University."

This letter, though disappointing in the immediate result, need not be regarded as discouraging in tone. It may be pointed out, however, that there was no ground for the apprehension that the University might try to expand its activities before fresh sources of revenue had become available. The University had asked for assistance only to carry out in a suitable manner the great work of advanced instruction and research in Science and Technology, which it had been privileged to initiate by reason of the munificence of Sir Taraknath Palit and Sir Rashbehary Ghose, long before the appointment of the University Commission and the formulation of their scheme of University reconstruction. But it is gratifying to record that while the Government of India had failed to assist the University in a befitting manner and the Government of Bengal could only express regret for its inability to promote the work of the University in these directions, yet another splendid donation was received by the University. The gift made by the late Kumar Guruprasad Singh of Khaira amounted to five and a half lacs of rupees, and the University was able last year to devote three of the five chairs, maintained out of that endowment, to Physics, Chemistry, and Agriculture—each of these a subject within the scope of the activities of the College of Science and Technology.

The substance of the matter is that while the University has persistently striven, during the last ten years, often under extremely adverse circumstances, to maintain a College of Science and Technology, the Government of India and the Government of Bengal have not yet helped the institution in a manner worthy of its great founders. In such circumstances, criticism, not accompanied by practical manifestation of good-will and sympathy, is not likely to facilitate the performance of a difficult task.

POST-GRADUATE TEACHING IN ARTS

Before we deal with the charges brought against the work of the Post-Graduate Department in Arts, it is necessary to state in a brief compass the origin and present position of that department; but it is not essential for our present purpose to trace the development of Post-Graduate Teaching in the University, under the Regulations framed in 1906, and before the introduction of the system now in operation.

In 1916, the Government of India appointed a Committee to advise them on the best method of consolidation of Post-Graduate studies. The Committee consisted of Mr. Hornell, Dr. Hayden, Mr. Anderson, Dr. Seal, Dr. Howells, Dr. P. C. Ray, Mr. Hamilton, Mr. Wordsworth, and Sir Asutosh Mookerjee as Chairman. On the 12th December, 1916, the Committee presented a unanimous report, which outlined a comprehensive scheme of reconstruction. The Government of India expressed their approval of the Report with the concurrence of Lord Carmichael, who was, at the time, Rector of the University. The Government of India then forwarded the Report to the Senate for consideration, with the intimation that, if the scheme framed by the Committee should find favour with the Senate, the Government would be prepared to accord their sanction to it. After a prolonged debate, the Senate adopted the principle formulated in the Report and framed Regulations with a view to carry it into immediate execution. Lord Ronaldshay, who had, meanwhile, succeeded Lord Carmichael as Rector, after independent examination of the scheme became, as he himself stated in his Convocation Address in 1920, its "convinced supporter" and "gave to it all the support which was within his power." On the 26th June, 1917, the Government of India accorded their sanction to the Regulations for Post-Graduate Teaching in various branches of Arts and Science. Since then, the Regulations have been amplified with the sanction of the Government concerned, and new subjects have been taken up for study and research, such as Indian Vernaculars, Anthropology, Ancient Indian History, and Commerce. The scheme now in operation is thus the result of deliberate thought and anxious discussion on the part of all the authorities concerned.* The financial aspect of the matter was manifestly kept well in mind by the framers of the Regulations when they inserted the following provision in section 45 of Chapter XI of the Regulations:

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* It is important to recall in this connection that such of the University Chairs as are maintained out of University funds

"From the date of commencement of the Regulations contained in this chapter, a fund shall be constituted for the promotion of Post-Graduate studies, to be called "The Post-Graduate Teaching Fund." To such fund there shall be annually credited

(*a*) grants from Government and benefactions made specifically for this purpose by donors;

(*b*) fees paid by students in the Post-Graduate classes;

(*c*) one-third of the fees realised from candidates for the Matriculation, I.A., I.Sc., B.A., and B.Sc. Examinations; and

(*d*) such other sums as the Senate may, from time to time, direct."

At the time when the Regulations were framed, the fees payable by candidates for the Matriculation, I.A., I.Sc., and B.A. examinations were raised from Rs. 12, Rs. 25, Rs. 25, Rs. 35 to Rs. 15, Rs. 30, Rs. 30, Rs. 40, respectively, with the proviso that one-third of the fees realised, including the fees for the B.Sc. examination (which remained unaltered), must be credited to the Post-Graduate Teaching Fund. It was fully anticipated that this contribution by itself would not be sufficient to enable the University to discharge the obligation imposed upon

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and not out of endowments have all been established, as required by Sec. 1 of Chap. IX of the Regulations, with the previous consent of the Government of India. The Carmichael Professorship of Ancient Indian History and Culture was established in this manner in 1912, the Professorship of Comparative Philology in 1913, the two Professorships in English Language and Literature in 1913, the Professorship of Botany in 1917, the Professorship of Zoology in 1917, and the Professorship of International Law, Public and Private, in 1919.

it, and that reliance would have to be placed upon grants from the Government, upon private benefactions, and upon such other sums as the Senate might from time to time find it practicable to vote from its general income. Economy and efficiency cannot be measured by a mathematical standard; but, subject to the obvious reservation that an educational institution maintained for the Advancement of Learning cannot be run on commercial lines, the system has been carried out with such economy as is consistent with efficiency. We are aware that the suggestion has been repeated from time to time that the salaries paid to Post-Graduate teachers were unusually liberal and that they were overpaid and underworked. This criticism is sufficiently answered by the significant fact that lecturers in the Post-Graduate Department have been eagerly sought after by promoters of new Universities and Heads of Government Departments who have offered them more liberal salaries and more attractive terms than this University has ever been in a position to hold out.* A new line of criticism has however recently found some favour, namely, that the University need not undertake instruction in subjects which do not attract a large number of students. This objection, if allowed to prevail, would sweep away most of the subjects which are peculiary well-suited for study and research in an Indian University, and are thus calculated to justify its existence as an oriental seat of learning. It will further be found that not a few lecturers have to work in more than one department, and some of them moreover are in charge of large under-graduate classes in subjects, not taken up in most of the affiliated Colleges in the city.* On the other hand, the fact cannot be ignored that the University Commission recommended (Report, Vol. 5, p. 282) that, *apart from all questions of reconstruction of the University*, a grant of Rs. 1,25,000 a year should be made by the Government with a view to increase the salaries of the members of the Post-Graduate staff which, on an average, amounted to Rs. 225 a month and should not, according to the Commission be, on an average, less than Rs. 300 a month. Indeed, one of the members of the Council conceded that the University professors were ill-paid and their tenure of office transitory, though he did not proceed to advocate liberal assistance from the State to remedy this state of things. It will also be recalled that, in anticipation of probable financial stringency as the result of the Great War, the Senate sought the sanction of the Government to a proposal for increase in the examination fees. The Government declined to accord the necessary sanction, except to a limited extent. Meanwhile, the expenditure in the general department of the University has appreciably increased as the result of post-war conditions. At the same time, the steady rise in the income of the University has been arrested by the successive creation of the Patna University, the Rangoon University, the Dacca University, and the Dacca Intermediate Board. The embarrassment of the situation has, moreover, been accentuated by an unforeseen reduction in the number of candidates at various examinations, which has been attributed to political excitement spreading throughout the country. The present situation is thus attributable, not to extravagance in providing for improved and increased facilities for advanced instruction of our students, but to accidental circumstances which were beyond control and could not have been anticipated.

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* In this category may be included, amongst others, Dr. Brajendranath Seal (Mysore), Dr. Ganesh Prasad (Benares), Dr. Rameschandra Majumdar (Dacca), Mr. Krishna Binod Saha (Dacca), Mr. Haridas Bhattacharyya (Dacca), Mr. Nalinimohan Bose (Dacca), Mr. Satyendranath Bose (Dacca), Mr. Sahidullah (Dacca), Dr. Jnanendrachandra Ghose (Dacca), Mr. Surendranath Majumdar (Patna), Dr. Radhakamal Mookerjee (Lucknow), Mr. Bhujangabhushan Mookerjee (Lucknow), Mr. Praphullachandra Bose (Indore), Mr. K. G. Naik (Baroda), Mr. A. K. Chanda (I. E. S.), Mr. B. N. Seal (I. E. S.), Mr. Durgagati Chattoraj (P. E. S.), Mr. Abinaschandra Saha (P. E. S.), Mr. Anantaprasad Banerjee (P. E. S.), Mr. Dhireschandra Acharyya (P. E. S.), Mr. Panchanandas Mookerjee (P. E. S.), Mr. Ramaprasad Chanda (Archæological Dept.), Mr. S. N. Bal (Botanical Dept.) Mr. Srinivasa Rao (Zoological Dept.), Dr. Sudhansukumar Banerjee (Meteorological Dept.), Mr. Chinmayanandan (Meteorological Dept.), Dr. Rasiklal Datta (Industries Dept.).

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* As an illustration we may mention that criticism has on this ground been directed against the Department of Pali amongst others. It has been urged that to maintain a staff of 8 teachers for 8 Post-graduate students is indefensible waste of money. This overlooks, however, the undeniable fact that the number of teachers requisite for specialisation and for advanced instruction and research, depends very largely upon the extent and scope of the subject concerned. Moreover, these Post-graduate teachers in Pali have to take part, along with two junior lecturers, in the work of 7 junior classes in Pali, for Matriculation, First Year, Second Year, Third Year Pass, Third Year Honours, Fourth Year Pass, and Fourth Year Honours students. The students in these classes number 200 on an average. The members of the staff in Pali have also to deal with Pali as one of the basic languages in the Department of Indian Vernaculars and with the History and Philosophy of Buddhism in the Department of Ancient Indian History. The Departments are, indeed, so correlated and interdependent that the abolition of one may involve the abolition of the others. Observations of a similar character apply to other departments, such as Arabic and Persian, and Anthropology. Though the number of Post-Graduate students in Arabic and Persian is small, there are under-graduate classes, which contain on an average 170 students. In Anthropology the number of Post-Graduate students is steadily increasing; there are, besides, under-graduate classes which contain about 140 students.

Another charge which has been brought against the University is that of duplicating the work of instruction available in other academic centres. An imputation more unfounded than this cannot well be imagined. The truth is that this University has been the first in the field in the matter of Post-Graduate teaching and research, and while the grants it has received from the State have not been increased for many years past, notwithstanding the steady and rapid expansion of its activities, other institutions have been created within its jurisdiction and are being maintained by liberal grants from the State, thus duplicating the work which had already been undertaken and performed by this University.

We cannot, in this connection, overlook the criticism that the University has undertaken instruction in subjects which are practically useless at the present moment. It is a novel theory that a University should concern itself solely, or even chiefly, with subjects, "which add to the material resources of the country"; that such a view can be seriously suggested by men who claim to have received a liberal education, makes it essential that we should not losesight of the value and importance of cultural education. As has been observed by a writer of eminence, though Science may open up prospects and careers, it does not increase the nation's spiritual stature, and nationality must look to its schools, to its arts (in the largest sense of the word), to its language or languages, to its literature which conveys the finest thought and deepest feeling of its past. The ideal here set forth has nothing narrow and exclusive about it. We cannot but feel that the speaker, who selected the departments of History and Tibetan for disapproval, was not happy in his choice. There is no subject which demands more careful and comprehensive study than History, ancient and modern, western and eastern, by Indian students, not only for success in academic career but also as a preparation for public life. As regards Tibetan, the speaker could not have been aware that ours is the only Indian University, which makes provision for its study, and that an exploration of the materials already collected is calculated to throw light upon the darkest corners of Indian History during the early centuries of the Christian era. Criticism of this type does not gain strength, even when coupled with an assertion emanating from the "representatives of the people," that the Post-Graduate Department is "out of all proportion to the demand for higher studies at the present moment." The plans for University development, whether judged by work already accomplished or activities yet to be undertaken, have been neither casual nor accidental, but are based on a definite conception of the true function of the University in the life of the Nation. We require more education and better education, and we have no doubt the demand for the highest type of education will increase as the requisite facilities become more and more available.*

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* It is interesting to compare the scope of activities of some of the modern Universities in England with the sphere of work undertaken by this University.

According to the Universities Year Book, 1922, the University of Bristol, incorporated in 1909, has teaching provision in the following subjects:

(1) Agriculture. (2) Anatomy. (3) Arabic, Armaic, etc. (4) Art. (5) Bio-Chemistry. (6) Botany. (7) Chemistry, Agricultural, Applied, Hygienic, and Physical. (8) Classics. (9) Dentistry. (10) Economics. (11) Education. (12) Engineering. (13) English. (14) French. (15) Geography. (16) Geology. (17) German. (18) Hebrew. (19) History. (20) Italian. (21) Law. (22) Local Government. (23) Mathematics, Applied and Pure. (24) Medicine. (25) Military subjects. (26) Mining. (27) Palæontology. (28) Philosophy. (29) Physics. (30) Physiology. (31) Public Health. (32) Technology. (33) Theological subjects. (34) Zoology.

The University of Birmingham, incorporated in 1900, provides facilities for study in the following subjects:

(1) Accounting. (2) Agriculture. (3) Human Anatomy and Anthropology. (4) Botany. (5) Brewing. (6) Chemistry. (7) Classics. (8) Commerce. (9) Dentistry. (10) Economics. (11) Education. (12) Engineering. (13) English. (14) French. (15) Geology and Mineralogy. (16) German. (17) History. (18) Italian. (19) Law. (20) Mathematics. (21) Medicine. (22) Metallurgy. (23) Mining. (*a*) Mining, Petroleum Tech. (*b*) Mining, Coal and Surveying. (*c*) Mining, Metal. (*d*) Mine Rescue Work. (24) Music. (25) Philosophy. (26) Physics. (27) Physiology. (28) Russian. (29) Spanish. (30) Zoology.

The University of Leeds, incorporated in 1904, teaches

(1) Agriculture. (2) Anatomy. (3) Bio-Chemistry. (4) Botany. (5) Chemistry. (6) Classics. (7) Dentistry. (8) Economics. (9) Education. (10) Engineering. (11) English Lan. and Lit. (12) French. (13) Geography. (14) Geology. (15) German Lan. and Lit. (16) Hebrew. (17) Histology. (18) History. (19) Law. (20) Mathematics. (21) Medicine. (22) Metallurgy. (23) Mining. (24) Philosophy. (25) Physics. (26) Physiology. (27) Russian Lan. and Lit. (28) Russian History and Music. (29) Spanish Lan. and Lit. (30) Technology. (31) Veterinary Hygiene. (32) Zoology. (33) Forestry.

Under Technology we find

(1) Coal, Gas, and Fuel industries. (2) Colour Chemistry and Dyeing. (3) Leather Industries. (4) Textile Industries.

Here we may conveniently set out the grants annually received by this University from the Government.*

(1) Minto Professorship (Economics)—Rs. 10,000 since 1909-10, raised to Rs. 13,000 since 1913-14.
(2) Hardinge Professorship (Mathematics)—Rs. 12,000 since 1912-13.
(3) George V Professorship (Philosophy)—Rs. 12,000 since 1912-13.
(4) Laboratory (Science)—Rs. 12,000 since 1912-13.
(5) Readers—Rs. 4,000 since 1912-13.
(6) University Post-Graduate Lecturers—Rs. 15,000 since 1912-13.
(7) Law College—Rs. 20,000 since 1909-10.
(8) Law College—Rs. 10,000 since 1912-13.

The University of Manchester, founded in 1880, provides instruction in the following subjects:

(1) Accounting. (2) Agriculture. (3) Anatomy. (4) Arabic. (5) Archæology. (6) Architecture. (7) Banking. (8) Botany. (9) Chemistry. (10) Chinese. (11) Classics. (12) Commerce. (13) Crystallography. (14) Dentistry. (15) Economics. (16) Education. (17) Egyptology. (18) Engineering. (19) Electro-Technics. (20) English Language and Literature. (21) French Language and Literature. (22) Geography. (23) Geology. (24) German and German Philology. (25) Hebrew. (26) Histology. (27) History. (28) Italian Studies. (29) Law. (30) Mathematics. (31) Medicine. (32) Metallurgy and Metallography. (33) Mining. (34) Music. (35) Palæography. (36) Philology. (37) Philosophy. (38) Physics. (39) Physiology. (40) Political Philosophy. (41) Psychology. (42) Public Health. (43) Railways. (44) Russian. (45) Semitic Languages and Literature. (46) Spanish. (47) Technology. (48) Theology. (49) Veterinary Science. (50) Zoology.

* Besides the grants enumerated, there is a sum of Rs. 13,128 placed by the Local Government in the hands of the University for part payment of rent of houses occupied by students of affiliated colleges. This can in no sense be treated as a grant to the University. Under the Regulations, the duty is cast upon the Colleges to provide for suitable residences for such of their students as do not reside with legal or approved guardians. This grant was instituted with a view to diminish the burden which might otherwise have been thrown by the Colleges upon their students.

(9) Inspection, General Administration—Rs. 25,000 since 1905-6.*

(10) Travelling expenses of Fellows—Rs. 5,000 since 1905-6.

If these sums were considered essential for the needs of the University so many years ago, it is undeniable that grants on a much more liberal scale from the public funds would, *primâ facie*, be necessary now to meet its steadily growing demands. What requires revision is not the ideal of those, who have developed and carried on the work of Post-Graduate teaching in the University, often amidst unpropitious circumstances, but the stand-point of those who are entrusted with the duty of promoting higher education by the assignment of grants from public revenues.

While on this subject, we may draw attention to the remarkable fact that although the grant for Post-Graduate teaching has remained unaltered during the last ten years, the introduction of the present system has actually resulted in pecuniary benefit to the Government of Bengal. The system, as is well known, is based upon the principle of co-operation between the Colleges and the University. Many of the Professors in the Presidency College have accordingly been appointed University Lecturers. The University offers them an honorarium of Rs. 1,200 a year each. The Government of Bengal receives the amount from the University and does not pay it to the Professors concerned. On the other hand, the authorities of the Presidency College have to pay over to the University the tuition fee recoverable from such Post-Graduate students as attach themselves to that College. The difference between the sum appropriated by the Government of Bengal and the sum paid by the Presidency College to the University shows a substantial balance in favour of the Government, as will appear from the following statement:

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* The cost of inspection of Colleges exceeds Rs. 18,000 a year, leaving less than Rs. 7,000 a year available for the general administration of the University.

1917-18	Rs. 3,464
1918-19	„ 14,255
1919-20	„ 15,976
Total	Rs. 33,695

It thus appears that the University has not only failed to induce the Government to increase its contribution towards Post-Graduate teaching, but has actually enriched the Government through its Post-Graduate department. It is also worthy of note that while control is claimed over the University as if it were a department of the Government, the University is treated as an outside body when revenue has to be levied. Thus, a sum of Rs. 5,362-11 has been recovered from the University during the period between 1st July, 1920, and 30th June, 1922, as customs duty on laboratory instruments brought out for the University College of Science, whereas no such duty is exacted from what are known as "Government Colleges." The instances of civic thoughtfulness mentioned above may, perhaps, indicate the nature of the treatment hitherto accorded to the University by the Government.

We feel bound to make some other observations before we leave this topic. As prescribed by the Regulations an elaborate procedure has to be followed whenever an appointment is made in the Post-Graduate department. The matter has to be placed successively before the Board of Higher Studies concerned, the Executive Committee, the Council, the Syndicate, and the Senate. Each nomination is liable to be challenged at every stage of this process, and the appointment, when made by the Senate, is required to be notified to the Government for the possible exercise of a power of veto on grounds other than academic. Criticisms of a general character to the effect that appointments thus made have been often injudicious should not carry weight with men of judgment and experience. Indeed, a careful study of the list of

Post-Graduate teachers would make it manifest that appointments have been made with care and caution. During the last two or three years, there have been many instances where vacancies on the staff, due to death, resignation, or like causes, have not either been filled up at all in view of financial stringency, or have been filled up by the appointment of younger men on smaller salaries.* But it must be kept in view that every vacancy in the staff cannot be left open, even if a modest standard of efficiency is to be maintained, specially where the interests of students, who are already undergoing training in a subject, must be safeguarded. It should not also be overlooked that the conditions of service in an educational organisation of this character, which includes many a scholar of high academic attainments, cannot be modified all on a sudden. This remark is of special force when we bear in mind that many members of the staff hold appointments for a specified term; but for such moderate security of tenure, it would have been impracticable to retain the services of competent men on the University staff. On the other hand, if it be maintained that Post-Graduate teaching should not have been undertaken by the University unless and until permanent guarantees of adequate grants could be obtained from the Government, experience renders the conclusion highly probable that there would never have been established a Teaching

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* In this category are included the vacancies, amongst others, in connection with Prof. Robert Knox, Mr. A. K. Chanda, Mr. Jyotischandra Ghosh and Miss Regina Guha of the Department of English; Mr. Surendranath Majumdar, Mr. Radhagobinda Basak and Mr. Niranjanprasad Chakrabarti of the Departments of Sanskrit and Pali; Geshe Lobzan Targay and Lama Dawasamdup Kazi of the Department of Tibetan; Mr. Mohitkumar Ghosh, Mr. Durgagati Chattoraj, Mr. Krishnabinod Saha, Mr. Praphullachandra Bose and Dr. Radhakamal Mookerjee of the Department of Economics; Dr. Rameschandra Majumdar, Mr. Ramaprasad Chanda and Mr. J. Masuda of the Department of History; Mr. P. K. Chakrabarti, Mr. B. N. Seal, Mr. H. D. Bhattacharyya and Dr. R. D. Khan of the Department of Philosophy; and Mr. Sahidullah of the Department of Indian Vernaculars.

University in Calcutta. Further, the fact remains that the Government of India, though reluctant to give increased financial assistance to this University for the development of higher teaching, have found it within their means to provide large sums of money for the establishment of a University at Dacca, and, in spite of their own increasing financial embarrassments, a University at Delhi. The fundamental importance of the idea of a Teaching University, which has been first put forward and carried out in Calcutta, is now appreciated all through India, and Governments, imperial and local, have shewn their readiness to promote the development of Teaching Universities—with the exception of Bengal, so far as Calcutta alone is concerned. Notwithstanding repeated assurances by the Government of India that the applications of this University for financial assistance towards the development of higher studies would be considered, the question, as we have seen, has been put off from time to time on a variety of grounds, till ultimately that Government severed all connection with this University. We cannot pass over in silence the fact that the Government of India incurred heavy expenditure by the appointment of a Commission in the expectation that a scheme of reconstruction might be framed for the University of Calcutta. Lord Chelmsford, in his Convocation Address, delivered on the 16th December, 1918, held out hopes that if the "Commission were unanimous in their main recommendations, he would lose no time in giving effect to them." To be brief, these hopes have not been fulfilled. Meanwhile, the Government of Bengal have pleaded their inability to render financial assistance on account of their own financial embarrassment.

It will be interesting to note here that the Government of India, while appointing the Post-Graduate Committee in 1916, stated, *for the information of the Committee*, that it should frame its recommendations merely with a view to the best expenditure of existing funds and should understand that further grants for post-graduate education could not be expected in the near future. This plainly could not be taken to have abrogated the position indicated in the letters from the Government of India, dated the 14th January, 1913, and the 23rd December, 1913, in reply to the applications of the University for financial assistance in recognition of the great endowments created by Sir Taraknath Palit and Sir Rashbehary Ghose. We must further remember that even after the report of the Post-Graduate Committee had been accepted by the Government of India, they stated explicitly, in their letter of the 9th August, 1917, that the question of granting financial assistance to the University for the purposes of higher teaching was—not finally decided against the University—but only deferred "pending receipt of the recommendations of the *proposed* University Commission."

We may close this section of our report with a comparison of the expenditure on Post-Graduate Teaching in Arts and Science respectively. The following tables set out the number of students on each side in the Fifth and Sixth Year Classes during the years 1920-21 and 1921-22:

ARTS.

	1920-21.			1921-22.		
	5th-year	6th-year	Total	5th-year	6th-year	Total
English ...	313	228	541	240	158	398
Sanskrit ...	25	22	47	12	16	28
Pali ...	5	3	8	2	4	6
Arabic ...	5	4	9	6	3	9
Persian ..	5	4	9	3	4	7
Comparative Philology ...	4	1	5	2	1	3
Indian Vernaculars ...	32	20	52	16	16	32
Philosophy ...	85	62	147	53	43	96
Experimental Psychology	11	4	15	3	2	5
History ...	109	54	163	57	59	116
Anthropology ...	20	...	20	19	9	28
Economics ...	104	68	172	51	63	114
Pure Mathematics ...	71	37	108	49	35	84
Ancient Indian History ...	26	21	47	18	17	35
Commerce ...	...	...	...	110	...	110
	815	528	1343	641	430	1071

SCIENCE.

	1920-21.			1921-22.		
	5th-year	6th-year	Total	5th-year	6th-year	Total
Applied Mathematics ...	27	22	49	17	14	31
Physics ...	33	26	59	30	18	48
Chemistry ...	27	26	53	28	20	48
Botany ...	4	1	5	6	4	10
Physiology ...	6	6	12	7	6	13
Geology ...	6	3	9	6	6	12
Zoology ...	9	1	10	5	2	7
Applied Chemistry ...	12	2	14	16	10	26
	124	87	211	115	80	195

It will be observed that whereas in 1920-21, there were 1,343 students in the department of Arts, there were only 211 students in the department of Science; in 1921-22 the respective figures were 1,071 and 195. Again, while the department of Arts included as many as fifteen distinct subjects, many of them consisting of several sections and sub-sections, there were only eight subjects in the department of Science. It is further worthy of note that three of the subjects in the department of Arts, namely, Experimental Psychology, Anthropology, and Pure Mathematics, lie on the border-land of Arts and Science, if, indeed, they are not really included in the domain of Science. Apart from this, the fact cannot be ignored that the department of Arts in an Indian University must be of an even more comprehensive character than in a western University, inasmuch as many of the subjects must be studied and investigated with reference to eastern as well as western conditions. For instance, subjects like History, Philosophy, and Economics have to be approached by the Indian student from a standpoint not quite identical with what appeals to a western student. Even if this factor be not taken into account, it will be found that in many western Universities, not specially devoted to Science, the scope of activities in the department of Letters is more comprehensive and involves the expenditure of a larger sum of money than the Science side.

Finally, the implications of the suggestion that the expenditure on the science side from the University Funds should be increased, are perhaps not always fully realised. Thus, if it were proposed to increase the number of students now annually admitted into the University College of Science, a substantial amount of capital expenditure would be inevitable, as additional buildings and laboratory appliances would at once be needed. The University cannot be expected to contribute continuously, from its precarious fee-income, large sums thus required for capital expenditure. It is also well-known that in a scientific subject which is always accompanied by laboratory work, each student costs an appreciable sum in the way of recurring expenditure. It has been calculated, for instance, that in the department of Chemistry, the monthly expenditure on each student is nearly three times the tuition-fee paid by him. Far different is the position in the department of Arts, where it is immaterial whether, for instance, forty or sixty students attend a class in Philosophy. It is desirable to add here that, apart from all these considerations, there exists a fundamental difficulty in the way of a substantial increase in the number of Post-Graduate students in the department of Science. Experience has shown that the accommodation available for B.Sc. students in our affiliated Colleges is strictly limited, and the training which is received by many of them is not sufficiently thorough so as to enable them to profit by a course of post-graduate study. This points to the conclusion that the affiliated Colleges themselves require to be strengthened, so that there may be a larger supply of better qualified graduates for admission into the University classes. This clearly raises a problem which the University cannot be expected to solve by means of its unaided efforts. When the true facts are correctly appreciated, it will, we think, be found that there is no ground for the imputation that the University has unduly favoured the department of Arts to the detriment of the department of Science. It should also be borne in mind that while the department of Science has attracted notable endowments, there is nothing substantial which can be deemed worthy of mention in the department of Arts. Moreover, the grant from the public funds is equally inadequate in the case of both the departments. Consequently, the Arts side must rely for its maintenance, in a much larger measure than the Science side, on the general fund of the University—unless, indeed, it is intended that the department of Arts should be starved out of existence.

Before we pass on to the next point, we may set out, in the form of a tabular statement, the amount spent during the last ten years in the Department of Arts under the principal heads of expenditure :

POST-GRADUATE TEACHING IN ARTS.

YEAR.		Minto Professor of Economics.	Hardinge Professor of Higher Mathematics.	George V Professor of Mental and Moral Philosophy.	Carmichael Professor of Ancient Indian History and Culture.	University Professors and Lecturers.	Administration.	Library.	Furniture.	Stationery and Contingencies.	Scholarship.	Electric Expenses.	Provident Fund.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1911-12	...	9,000	...	...	...	...	...	...	...	...	...	...	...
1912-13	...	5,250	...	...	2,032	46,141	...	...	...	...	...	...	...
1913-14	...	5,935	9,950	5,000	12,000	66,289	...	...	...	...	...	...	...
1914-15	...	15,428	15,000	12,000	4,645	1,23,521	...	...	...	...	...	2,804	...
1915-16	...	14,573	15,000	12,000	...	1,32,580	...	...	...	...	...	2,607	...
1916-17	...	15,000	6,250	12,000	...	1,34,994	...	...	...	...	...	2,982	...
1917-18	...	15,000	7,185	12,000	10,967	2,15,966	8,003	5,517	1,508	722	...	3,306	...
1918-19	...	9,032	16,200	12,000	12,000	3,24,472	19,730	18,724	2,211	1,499	925	3,209	...
1919-20	...	4,839	16,200	14,750	12,000	3,28,645	28,286	20,759	1,170	2,180	4,163	6,024	3,621
1920-21	...	12,000	16,200	10,935	16,145	3,88,215	25,453	18,303	1,957	2,637	7,520	3,449	12,082
1921-22	...	11,000	14,850	12,504	16,500	3,67,330	28,745	6,915	692	4,691	7,715	3,276	10,416
TOTAL	...	1,17,057	1,16,835	1,03,189	86,289	21,28,153	1,10,217	70,218	7,538	11,729	20,323	27,657	26,119

GRAND TOTAL—28,25,324.

This sum was met from :	Rs.
(1) Government grant for three Professorships	3,37,081
(2) Government grant for University Lecturers	1,50,000
(3) Tuition fees from students	7,97,522
(4) University funds	15,40,721
TOTAL Rs.	28,25,324

The figures in this table, when contrasted with those contained in the table set out above regarding the University College of Science, bring into relief two vital points. In the first place, the contribution from the University Funds for Post-Graduate teaching in Arts has not been unduly excessive in comparison with the contribution to the College of Science. In the second place, while in the case of the Department of Arts, the University has not contributed even double the amount of tuition-fees, in the case of the Department of Science, the University has contributed about fifteen times the amount of tuition-fees.

MISUSE OF EVIDENCE

We have up to this stage dealt with the more important criticisms contained in the speeches made by the Members of the Council. It is neither necessary nor practicable to take notice of every allegation made against the University, specially when, as we shall presently see, some of the Members themselves admitted that they had no personal knowledge of University affairs. But we must draw attention to the attempt at what may not be unfairly described as an improper use of evidence. One of the speakers invoked the authority of two members of the Calcutta University Commission in support of his condemnation of the Post-Graduate system. He did not, however, inform the Council that the two members whose opinion he cited were in the minority and that a contrary view had been adopted by the five members who formed the majority of the Commission.*

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* The majority refer to "the remarkable expansion of Post-graduate teaching under the direct auspices of the University," and summarise their views in the following passage:

"It has been achieved as a result of the new principle laid down in 1904, and by the help of large grants from the State, The speaker did not also place before the Council what the majority thought of the note appended to the report by the two members in minority. The following extract from the majority report (Vol. V, p. 351) will make it obvious why the speaker did not mention these facts to his colleagues in Council:

> "We desire to say that the appended notes were submitted in their final form on the day fixed for the final revision of the last two chapters and for the signature of the report. The principles concerned have been fully considered during our sittings, and we think that it will be found that every crucial point raised in the notes is dealt with in some part of the report. While we do not propose to discuss the details of our colleagues' documents, we must not be regarded as accepting the interpretation placed by them upon various passages of the report to which they refer; nor can we be regarded as accepting the accuracy of the statements made by them."

We shall not pause to speculate what would have been thought of an advocate, who attempted to make a similar use of evidence or precedent in a court of justice. But we shall proceed at once to what seems us to be an even more striking instance of this tendency to make improper use of evidence. The same speaker invoked the authority of the late Sir Rashbehary Ghose, the greatest benefactor of the University, in support of his own disapprobation of the work of the University. He relied on the circumstance that Sir Rashbehary Ghose had, by his testament, left the residue of his estate to the National Council of Education and not to the University—the implication was that Sir Rashbehary Ghose had lost

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and private benefactions on a scale hitherto unexampled in Bengal. It showed that much could be done by the University to concentrate and consolidate the teaching resources of Calcutta. It showed that these resources were greater than had been supposed. It set, in some respects, new standards of method in University teaching, which might be expected to exercise their influence in course of time upon the work of the colleges. Taken in conjunction with the concurrent reorganisation of the colleges rendered necessary by the Act, and with the attempt to deal with the problem of students' residence rendered possible by large Government grants, it represents an expenditure of labour and thought so great, and a skill in organisation so considerable as to inspire solid hopes for the future." (Report, Vol. I, p. 76.)

faith in the University, or, at any rate, had "grave doubts" as to the competence or good faith of those who administered University affairs. The speaker, however, omitted to state that the very testament of Sir Rashbehary Ghose, which contained the residuary gift in favour of the National Council of Education (whereof he had been the President since its foundation), also contained a bequest of two and a half lacs of rupees in favour of the University, even though the University had already been the recipient of two princely gifts from him in 1913 and 1920. We need not deal with this point further, as the matter was mentioned by the Vice-Chancellor before the Senate on the 6th August, 1921.*

This very speaker utilised his reference to the second gift of Sir Rashbehary Ghose to sustain a charge of grave dereliction of duty on the part of the University authorities, alleging that "laboratories and workshops for Applied Chemistry and Applied Physics and for other such subjects expressly mentioned by Sir Rashbehary Ghose in his trust deed have not yet been earnestly taken up nor completed, though a large sum must have by this time accumulated in the funds of the University." The facts relevant in this connection have only to be narrated to establish conclusively that the charge is entirely unfounded. Sir Rashbehary Ghose made over to the University the securities comprised in his second trust on the 16th March, 1920. The annual income is Rs. 40,005; deducting the salaries of the two professors of Applied Physics and Applied Chemistry and the stipends of the four scholars attached to them, a balance of Rs. 24,405 would be left annually to meet the cost of equipment of laboratory and workshop as also current expenses. It is manifest that the balance thus available is totally inadequate for the purpose of equipment of a laboratory and a workshop. This was fully realised by the Board of Management of the Ghosh Fund, by the Governing Body of the College of Science, and by the Syndicate. Whatever income accrued in the shape of interest on the securities, was spent in the first instance for the equipment of a laboratory for the department of Applied Chemistry. It was clearly impossible to meet, from the income, the capital expenditure involved in the erection and equipment of a workshop. A detailed statement was accordingly drawn up by the Professor concerned, and on the 5th February, 1921, the Registrar, under the instruction of the then Vice-Chancellor (approved by the Syndicate on the 11th February, 1921), addressed a letter to the Government of Bengal asking for financial assistance. This letter has already been set out in an earlier part of this report. Reference was made to the gift of Sir Rashbehary Ghose, and it was pointed out that the most essential need was an adequate workshop which, it was estimated, would cost Rs. 2,25,000, namely, Rs. 75,000 for building and Rs. 1,50,000 for appliances. No answer was received in reply to this request during a period of more than nine months; the University was then informed by a letter, dated the 15th November, 1921 (already set out), that no assistance could be given by the Government. Meanwhile, the difficulties of the students, already under training, rapidly grew more and more acute. But while the members of the Legislative Council were vigorous in their attack on the University, the University authorities themselves were not idle. They reduced the plans for the workshop to the utmost extent possible, and induced a Calcutta firm to undertake the work and to receive payment in four annual instalments, the first instalment of

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* "This posthumous gift furnishes incontrovertible evidence that Sir Rashbehary Ghose retained to the last his confidence in this University. I make special reference to this aspect of the matter, because a persistent rumour has been current for some time past that a desperate attempt was made by more than one well-wisher of this University to create in the mind of our great benefactor an impression that the people, whom he had trusted with the earnings of a life-time, had proved themselves unworthy of his confidence. This story, if true, would only indicate the depth of possible depravity of human nature; on the other hand, the story, if false, indicates the existence of men who are not slow to calumniate even the mighty dead. For, do we not know that Sir Rashbehary Ghose would be the last man in the world to listen to idle tale-bearers, or be guided by them in his actions?"

Rs. 25,000 to be paid in advance. Even this sum, however, was not available. Upon the advice of the Board of Accounts, with the concurrence of the Board of Management of the Ghosh Fund, supported by the opinions of leading counsel, and with the sanction of the Senate, the Syndicate thereupon applied to the High Court for permission to change the investment in the Ghosh Fund, so that an increased income might be obtained for the benefit of the Trust. The High Court granted the application. The history of this investment is contained in the following statement, which was laid before the Senate on the 4th March, 1922 :

> "3½ p.c. G. P. notes for Rs. 10,50,000 being the equivalent of Rs. 6,25,000 were endorsed to Hajee Ganny Ahamed on the 19th September, 1921, and were received back from him on 22nd February, 1922. Hence the G. P. Notes were in his possession for five months and three days. Interest for the above period at the rate of 3½ per cent. amounts to Rs. 15,618-12-0. This amount the University did not get. But a total sum of Rs. 51,064-11-6, on account of interest was paid by the mortgagor during this period of five months and three days. Thus the University made a profit of Rs. 35,445-15-6 in this transaction. Deducting Rs. 2,625, being the amount charged by the Bank as withdrawal fee on the above G. P. Notes, we get a clear net profit of Rs. 32,820-15-6."

The result of this transaction was, as stated above, a net profit of about Rs. 32,821, which alone rendered it possible for the Syndicate to pay to the contractor the first instalment of Rs. 25,000 and to commence the construction of the workshop. The work has not yet been completed. The University has, however, made itself responsible for about Rs. 1,10,000 out of which the sum of Rs. 25,000 only has been paid. What then is the true position ? The University authorities have strenuously endeavoured to provide a workshop for the department of Applied Chemistry and have spared no effort to raise money with a view to meet the capital outlay involved. The custodians of the public funds, on the other hand, though approached, have made no response whatsoever, while the "representatives of the people" have deemed it a profitable task to charge the University authorities with dereliction of duty. We may leave it to others to judge where the responsibility will lie, if, to the misfortune of the country, the attainment of the object which Sir Rashbehary Ghose had in view is defeated or delayed.

ATTACK ON UNIVERSITY OFFICERS AND TEACHERS

We have already indicated that one of the speakers in the Council frankly admitted that his "knowledge of the University was more or less second-hand" and that he had "never visited it since he left it unscathed." It is remarkable that none of the gentlemen who bitterly criticised the University was a member of the Senate, or presumably had first-hand acquaintance with University affairs. Still, these gentlemen proceeded to attack vehemently the University, its officers, and teachers. One feels constrained to enquire, what opportunities they had, in the course of their careers, to acquaint themselves with the details of University work? What were their qualifications to pronounce judgment upon academic matters? These questions may be inconvenient, but cannot be avoided, because the mere fact that a gentleman occupies a seat on the Legislative Council does not necessarily furnish a guarantee of his competence to form a sound judgment on academic affairs. Apart from this, a further question arises,—is it open to individual members of the Legislative Council to abuse the officers and teachers of the University—they are not servants of the Government, or of the Council, much less are they subordinate to individual Members of the Council. We consider it lamentable that the officers and teachers of the University should be liable to unfounded attacks by individual Members of the Council, which cannot but be regarded as a grave abuse of the statutory freedom of speech enjoyed by them. The gravity of the situation is clearly intensified when such attacks are founded admittedly on second-hand information, and the question may well be asked, who were the informants? We find that one member of the

Council had, indeed, the courage to maintain that the attack on the University had been engineered from purely personal motives and not from a desire to promote educational interests. We are not concerned with these conflicting theories, but this much is clear that men, sincerely anxious to promote the welfare of the University, cannot be assisted by uninformed and prejudiced criticism abounding in sweeping generalisations of a condemnatory character.

IMPUTATION OF "PETULANCE"

Some of the speakers have, in language which we have not the inclination to imitate, imputed 'petulance' to the University. This conclusion they have drawn from what they consider to be the indefensible refusal of the University to answer all their questions or to supply information whenever demanded. We have already discussed the constitutional aspect of this matter. We now desire to emphasise that there is no foundation for the charge that there has been a 'petulant' refusal on the part of the University to answer questions or supply information. On the other hand, any impartial judge of the series of questions which have been put in Council with regard to the University,—in most cases, by persons who are never known to have taken any interest in matters educational,—will feel convinced that many of them were not genuine requests for information, and that some of them, at least, contained thinly-veiled imputations upon individuals connected with the work of the University. It must further be remembered that there is a clear distinction between supply of information for the use of the Government and supply of information for immediate communication to the public. In every University, probably in every public corporation, there are many matters which must for a time be treated as confidential and cannot be published without serious detriment to its work. Apart from this, in the case of every University, there are many matters, particularly those connected with examinations, which must be treated as confidential, and their disclosure cannot be demanded even by the most exalted person outside the academic sphere. While we are on this topic, reference may be made to demands for financial information. The University has never refused to give information on financial matters, if required by the Government for its own use; but when such information is required by individual members of the Council, the matter stands on a different footing; it cannot be maintained that every individual member of the Council is entitled, as of right, to demand information regarding the finances of the University whenever he chooses, before it has been made available by the University for the use of the general public. Under the law, the University accounts are and can be audited only once in every year. When such audit report is submitted to the Government, the Government may, after the University has been afforded an opportunity to comment thereon, place the matter before the public. The attitude of the University in this respect may be gathered from the following extract from a letter dated the 11th March, 1922, addressed by the Registrar to the Secretary to the Government of Bengal (See Appendix III):

> "The Syndicate have directed me to inform Government that in the opinion of the Syndicate it is not necessary to appoint a committee to obtain financial information regarding the University, inasmuch as such information in detail is already in possession of the Government. The accounts of the University are continuously audited by officers deputed by the Government for the purpose, and that work is so minutely done that it usually occupies 8 to 9 months every year. The audit has been completed up to June, 1920. The accounts for 1920-21 are now in course of audit, and any financial information relating to that period, which may be required by Government, may be obtained from their officers who are now auditing the accounts of that period. As regards later period, financial information will be supplied, whenever asked for."

We cannot leave this topic without the remark that some of the questions put in the Council seemed to imply that the University had made improper use of its Funds, and some of the speakers made pointed references to the supposed misuse of what is known as the Fish Market Fund, although they had obviously no personal knowledge of the subject. As the Fund came into existence, and the incident mentioned by the Members of the Council took place, at a time when the University had no relations with the Government of Bengal, a statement on the subject has been supplied to the Government of India ; it may be conveniently set out here, as it contains the facts about this matter :

> "From the 19th November, 1920, to the 2nd January, 1921, the University found it necessary to make a temporary overdraft on the Bank of Bengal in its Account Current. The amount of the overdraft varied from Rs. 34,000 as maximum to Rs. 20,000 as minimum. The Bank proposed that the securities in the Fish Market Fund would be treated by them as security for the temporary overdraft. The Syndicate agreed to this proposal.* The interest on the amount overdrawn for the six weeks amounted to Rs. 53-6-3 and was paid out of the current funds of the University. On the 3rd January, 1921, there was a large surplus in the current account in favour of the University after meeting the overdraft. The entire amount in the Fish Market Fund has always been intact and available for expenditure on such building as it may be decided to erect on the site. No part of the Fund has been spent for the general purposes of the University. In the opinion of the Syndicate, they did not act in excess of their powers in this matter."

Such is the prosaic account of a transaction, which, it was supposed by some, had furnished an opportunity to the authorities of the University to "misappropriate" University Funds in some mysterious manner. We do not feel called upon to determine the legal aspects of the matter or to investigate and narrate here the full history of the Fish Market Fund—when and how it came into existence, how the Government of Bengal made an ineffectual attempt to keep in hand the surplus which rightly belonged to the University, how the market itself was for several years retained by the Government of Bengal in its own possession, and how it was ultimately recovered by the University.

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* This took place at a meeting of the Syndicate, held on the 15th November, 1920, when the members present were, the Hon'ble Sir Nilratan Sircar (Vice-Chancellor), the Hon'ble Mr. W. W. Hornell (Director of Public Instruction, Bengal), the Hon'ble Sir Asutosh Mookerjee, Rai Bahadur Dr. Upendranath Brahmachari, J. N. Dasgupta, Esq., S. C. Mahalanabis, Esq., Birajmohan Majumdar, Esq., Lt.-Col. B. H. Deare, T. H. Richardson, Esq., Rev. Dr. W. S. Urquhart, Manmathanath Ray, Esq., Charuchandra Biswas, Esq., Prof. D. R. Bhandarkar, and Pramathanath Banerjea, Esq.

CHOICE SENTIMENTS

Several of the speakers, perhaps carried away by their zeal to advocate the reform of this University, expressed their sentiments in language so choice that we cannot but include some specimens in this report, though the assertions are indefinite, unsupported by evidence, and, consequently, incapable of contradiction:

1. "These Post-Graduate professors have time enough to fill up the columns of newspapers with all sorts of nonsense in abusing people who point out the defects of the present system of the educational policy adopted by the Calcutta University; they have time enough to dance attendance at the residences of selected members of the Syndicate, but they have no time to deliver lectures to the students for which they are paid."

2. "Examiners' fees have been reduced so low that all sorts of corruption have begun to creep into the system of examination."

3. "It has been asserted that those who have been appointed Post-Graduate professors or teachers do not always possess the requisite qualifications for teaching those subjects they are placed in charge of."

4. "It is openly given out that the Registrar is incompetent for the office he holds, as is apparent from the letter he had addressed to Mr. Sharp. Sarcastic remarks are made that the nearness of the fish market has perhaps some bearing on the language used in the letter."

5. "Our University, a thing which we love, is now the mighty training ground of students in the art of flunkeyism and the science of sycophancy. Moral strength is not always acquired in that University in these days."

6. "You are asked to show receipts and give replies, and you refuse and get fidgety, this is the kind of thing you would expect from a hysterical girl, and not from such a great academic institution as the University."

7. "I need not go into details. My knowledge of the University is more or less secondhand; I have never visited it since I left it unscathed. But even with that knowledge, I know that there have been appointments which should never have been made. Posts have been given to men who have no proper knowledge or training."

8. "A public corporation created by a statute of our own predecessors, for, as regards the University, the Bengal Government has actually stepped into the shoes of the Government of India, a corporation receiving annually financial help from us, and knowing also that by next March it must have to come up to us for a sanction of its demands, that such a body with incomparable petulance can flout our Minister and deny our authority is inconceivable to me. Had it been an individual and not a corporation, I would have considered him moonstruck, fit only to be lodged in an asylum."

9. "So far as I am aware, there is a persistent and a genuine demand that there should be a sifting inquiry into how finances are kept, not merely of the Calcutta University but of many public bodies. That is only a sign of the times, and the reason is that while people sincerely subscribe, those who are charged with the administration of funds have a tendency of being insincere and extravagant."

Comment is needless.

CONCLUSION

A careful perusal of the Proceedings of the Council has convinced us that the reform which is most urgently needed in the best interests of the University and of the public, is the representation of the *Senate* on the Council. We are not unmindful that one of the seats on the Council is allocated to what is known as the University Constituency. That constituency is composed in the main of graduates of this University, and the person, elected by them, cannot necessarily be deemed as the representative of the *Senate*. He need not be, and in the present instance he is not, even a member of the Senate. In such a contingency, he cannot be in intimate touch with the work entrusted to the Senate, nor can he possess that amount of detailed and up-to-date information on University affairs which is requisite to enable a person to discharge his duties as the spokesman of the Senate. It may be usefully recalled here that when the composition of the Bengal Legislative Council was determined in connection with the Reform Scheme, this University had no relations with the Local Government; indeed, it was intended at that time that for some years, even after its reconstruction in accordance with the report of the University Commission, it should, as before, stand in a special relation to the Government of India. In such circumstances, whatever apparent justification there might have been for the refusal of the application of the Senate to secure direct representation on the Council, it cannot be denied that the situation has radically altered since the University was brought into touch with the Local Government by Act VII of 1921. The matter is, indeed, too obvious to require elaboration; it is plainly immaterial that some members of the Senate may by chance find places on the Council from other constituencies. What must be regarded as a paramount and urgent need is that the Senate should be authorised to elect to the Council its own representatives, who may, whenever, the occasion arises, speak on its behalf with knowledge and authority. If this reform should be effected, the repetition of what took place in the Council on the 29th August, 1921, would, one might well hope, be rendered impossible. For, even if we are constrained to admit that there may be, perhaps always will be, in all public assemblies, some members whose acts and utterances may not be invariably inspired, solely by a regard for public good, yet, we feel confident that a preponderating majority, when apprised of the facts, will resolutely refuse to lend their ears to tale-bearers, will fearlessly discharge the duties of their responsible positions, and will thereby justify the trust reposed in them.

In conclusion, we desire to place it on record that we have, without hesitation, utilised, in some places, the materials collected and the report framed by the Committee which was appointed by the Senate on the 13th March, 1922.

ASUTOSH MOOKERJEE.
NILRATAN SIRCAR.
G. C. BOSE.
ASUTOSH CHAUDHURI.
HIRALAL HALDAR.
J. WATT.
GEORGE HOWELLS.
BIDHAN CHANDRA ROY.
JATINDRANATH MAITRA.

The 8th July, 1922.

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APPENDIX I

Pages 45-49.

APPENDIX II

Pages 49-53.

APPENDIX III

CORRESPONDENCE WITH THE GOVERNMENT OF BENGAL ON THE SUBJECT OF THE RESOLUTION CONSIDERED IN THIS REPORT

From W. C. Wordsworth, Esq., M.A., Deputy Secretary to the Government of Bengal, to the Registrar, Calcutta University, No. 2504 Edn., dated the 2nd December, 1921. (The Hon'ble Mr. P. C. Mitter, C I.E., Minister in charge.)

" I am directed to forward for the information of the Vice-Chancellor and the Syndicate a copy of the Resolution moved by Babu Rishindranath Sarkar regarding the appointment of a Committee to enquire into the finances of the Calcutta University, at the meeting of the Bengal Legislative Council held on the 29th August, 1921, together with the proceedings of the Council, pages 138-175 of the Council Proceedings, Volume V (copy enclosed). The matter is now under the consideration of Government and the observations of the University are invited on it."

RESOLUTION.

(Under the rules for the discussion of matter of general public interest.)

Calcutta University.

Babu Rishindranath Sarkar : " This Council recommends to the Government that, with a view to determine what financial assistance, if any, should be given to the Calcutta University, a committee, consisting of two financial experts, and two members of the Senate, to be nominated by the Government, and three non-official members of this Council not holding any office in the University, to be elected by the Council, be appointed at an early date to enquire into and report on the general working of the University, in particular its financial administration, and recommend such urgent measures or reforms as may be necessary."

From the Registrar, Calcutta University, to the Deputy Secretary to the Government of Bengal, Education Department, No. Misc. 4606, dated the 13th December, 1921.

" With reference to your letter No. 2504 Education, dated the 2nd December, 1921, on the subject of the resolution moved by Mr. Rishindranath Sarkar, M.L.C., regarding the appointment of a committee to inquire into the finances of the University, I am directed by the Hon'ble the Vice-Chancellor and Syndicate to inform you that the following resolution was recorded by the Syndicate at their meeting held on the 9th December, 1921 :

' That the Deputy Secretary to the Government of Bengal, Education Department, be informed that in order to enable the members of the Syndicate to form an opinion on the subject, it is necessary that 21 copies of the Proceedings should be forwarded to the University.' "

From the Registrar, Calcutta University, to the Deputy Secretary to the Government of Bengal, Education Department, No. Misc. 5130, dated the 17th January, 1922.

" I have the honour to invite your attention to this office letter No. 4606, dated the 12th December, 1921, and to request that the copies of Proceedings asked for therein may be supplied at an early date."

From the Registrar, Calcutta University, to W. C. Wordsworth, Esq., M.A., Deputy Secretary to the Government of Bengal, No. D.O.-G. 81, dated the 30th January, 1922.

"You spoke to me the other day regarding supply of 21 copies of the Proceedings of the Council meeting held on the 29th August, 1921, which contain the debates on the subject of the resolution moved by Mr. Rishindranath Sarkar regarding the appointment of a committee to enquire into the finances of the University. I have ascertained from office that the copies have not been received. I sent you a reminder on the subject on the 17th instant."

From the Deputy Secretary to the Government of Bengal, to the Registrar, Calcutta University, No. 379 Edn., dated the 22nd February, 1922.

" With reference to your letter No. Misc. 4606, dated the 12th December, 1921, and subsequent reminder, I send herewith 15 copies of the Debates in Council on the resolution of Babu Rishindranath Sarkar regarding the appointment of a committee to enquire into the finances of the Calcutta University.

From the Registrar, University of Calcutta, to the Deputy Secretary to the Government of Bengal, Education Department, No. Misc. 6090, dated the 2nd March, 1922.

"I am directed to inform you that your letter No. 379 Edn., dated the 22nd February, 1922, together with the copies of the debates mentioned therein, was laid before the Syndicate on the 24th *idem.* The Syndicate have ordered the copies to be circulated to the members with a view to appoint a Committee to consider the various points raised therein. This will necessarily take time and I shall communicate to you the decision of the Syndicate later on."

From the Registrar, Calcutta University, to the Secretary to the Government of Bengal, Education Department, Misc. No. 6250, dated the 11th March, 1922.

"I am directed to reply to your letter No. 379 Edn., dated the 22nd February, 1922, forwarding 15 copies of the Debates in Council on the resolution moved by Mr. Rishindranath Sarkar.

I have to observe at the outset that the Syndicate was not in a position to take into consideration the question raised in the Resolution till the 24th February last, as will appear from the following statement of dates :

Dates.	
30th August, 1921	... Mr. Sarkar's motion carried in Council.
5th December, 1921	... Letter No. 2504 Edn., dated the 2nd December, 1921, from the Deputy Secretary to the Government of Bengal, forwarding copy of the resolution and inviting observations of the University.
9th December, 1921	... Ditto—placed before the Syndicate. *Order*—Ask Government to send 21 copies of Debates.
12th December, 1921	... Letter (Mis. 4606) to Government, forwarding resolution of the Syndicate, dated the 9th December, 1921.

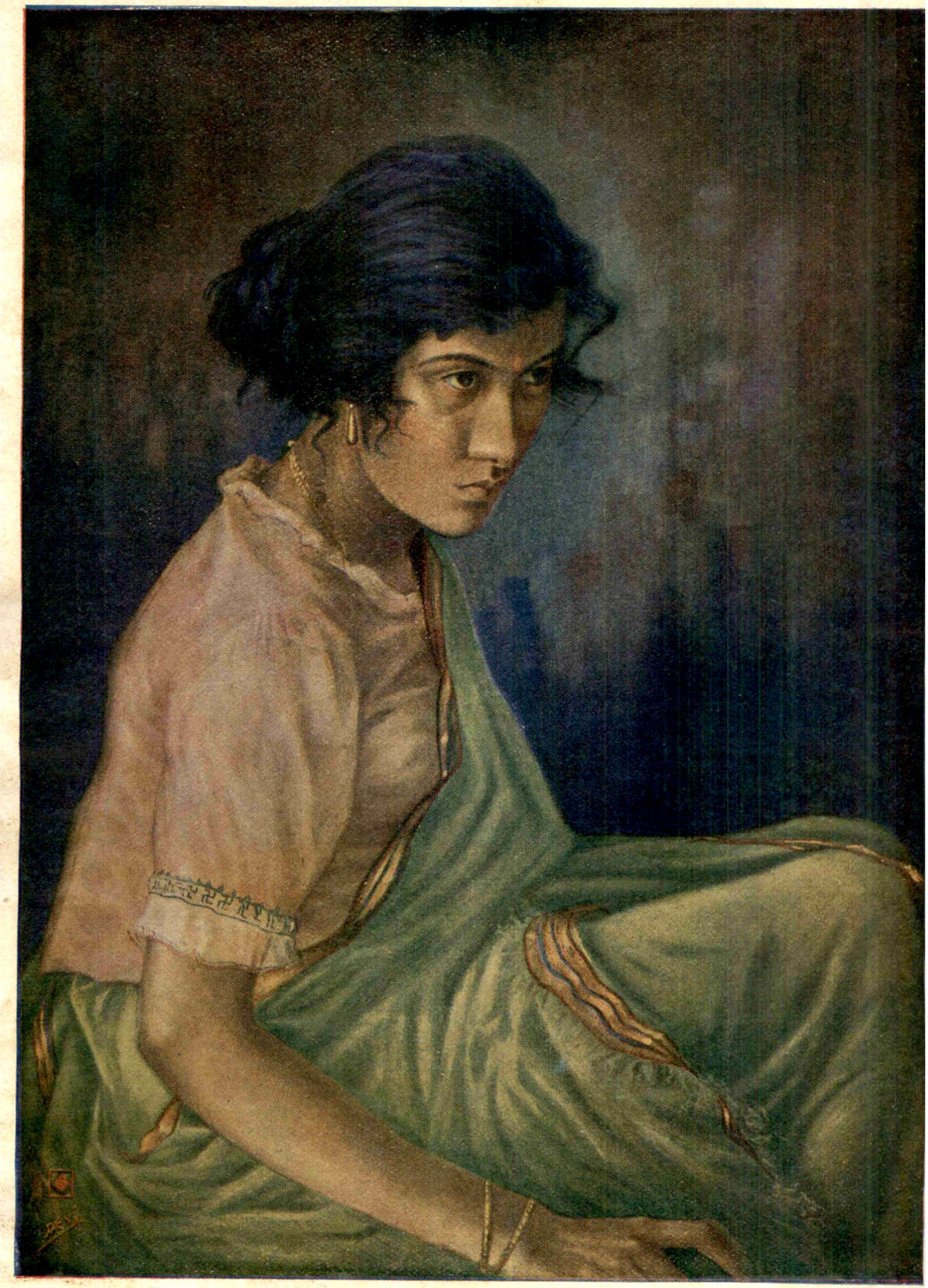
17th January, 1922 ...	Reminder to above (Mis. No. 5130).
30th January, 1922 ...	Ditto—(D. O. G. 81).
23rd February, 1922 ...	Letter No. 379 Edn., dated the 22nd February, 1922, from the Deputy Secretary to Government, forwarding 15 copies of the Debates.
24th February, 1922 ..	Ditto—placed before the Syndicate. *Order*—Circulate copies of the Debates to members of the Syndicate and bring up after a fortnight.
2nd March, 1922 ...	Letter No. Mis. 6090 to the Deputy Secretary to Government, communicating orders of the Syndicate, dated the 24th February, 1922, and informing that it will necessarily take some time to communicate decision of the Syndicate.

Your letter of the 22nd February, which was received on the following date, was placed before the Syndicate on the 24th. The Syndicate thereupon directed that the copies of the Debates be circulated to the members of the Syndicate and that the matter be brought up after a fortnight. This order of the Syndicate was communicated to you in my letter No. Misc. 6090, dated the 2nd March, 1922. The matter was considered by the Syndicate last night. The Syndicate have directed me to inform Government that, in the opinion of the Syndicate, it is not necessary to appoint a committee to obtain financial information regarding the University inasmuch as such information in detail is already in possession of the Government. The accounts of the University are continuously audited by officers deputed by the Government for the purpose, and that work is so minutely done that it usually occupies 8 to 9 months every year. The audit has been completed up to June, 1920. The accounts for 1920-21 are now in course of audit and any financial information relating to that period, which may be required by Government, may be obtained from their officers who are now auditing the accounts of that period. As regards later period, financial information will be supplied whenever asked for. The resolution and the speeches appear to the Syndicate, however, to raise wider issues, which must be considered by the Senate, and the

Syndicate have accordingly directed the matter to be placed before the Senate for such consideration. The Senate will meet on the 25th instant for the purpose.

Resolution of the Senate, dated the 25th March, 1922.

That the action taken by the Syndicate in the above matter be approved and that the further consideration of this matter be referred to a Committee of nine members of the Senate.



PEERING INTO THE FUTURE

Artist—Deviprasad Raychowdhury

THE CALCUTTA REVIEW

SEPTEMBER, 1922

AUTUMN

By thy wave I linger,
Silent stream,
Autumn's golden finger
Paints thy dream.

From the beeches falling
Down thy face,
Summer past recalling
Drifts apace.

Only mists rise stilly,
A sad peace!
Damp earth yields no lily,
Roses cease.

Here where I sank lazy
Deep in grass,
No surviving daisy
Tells what was.

Kingcup blaze of meadow,
  Cuckoo-call,
Is it all a shadow
  I recall?

Yet when down these reaches,
  Nipt with cold
Scarce the wintry beeches
  Durst be bold.

Windy magic struck us,
  March's rod.
Like sunbeams the crocus
  Burst the sod.

And when April after
  Showered the ground,
Daffodils in laughter
  Danced around.

O the crimson story,
  White and red!
May-blossoms in glory,
  Too soon shed!

Scarcely May-time closes
  Burning June
Brings me her musk roses
  And her moon.

Blue skies to embolden
  Hot July
Amid cornfields golden
  Oped an eye.

Last for fancy's yearning
  Thought to save,
Her frail poppy burning
  August gave.

Springtime's lovely story,
  Summer's dream,
Where is gone the glory,
  Silent stream?

Calm thy current flowing
  Ripples on,
Pang nor memory showing
  Of what's gone.

Canst thou unregretful
  Silent glide,
For no loved flower fretful,
  Flowers that died,

For no sweet bird caring,
  Birds that sang
Lost musicians, faring
  With no pang?

Thou the present only
  Car'st to glass,
Feel'st nor reft nor lonely
  For what was.

Art thou, solemn river
  Lethe stream,
That there comes no shiver
  O'er thy dream?

Memory's sunken anchor
  Yearns my heart,
Rusts and rusts to hanker,
  Grieves to part.

Gorgeous, tristful tender
  Autumn sighs,
Grieving to surrender
  Pomp that dies.

Autumn melancholy
  Mourns with me
Summer's spendthrift folly,
  Springtime's glee.

Gone are all the glories!
  Autumn, speak,
Where for what no more is
  Shall we seek?

Now with falling splendour
  Every leaf
Fills the heart with tender
  Wistful grief.

Now with mists September
  Mournful is,
Sadly to remember
  July's kiss.

M. GHOSE

ANCIENT INDIA

My first words must be words of thanks to the University of Calcutta, which has been so good as to confer on me the degree of Doctor, and—in association with the Viśva-Bhāratī of Śāntiniketan—to summon me from a distant country as a visitor, a guest, and a colleague among colleagues. I deem it one of the highest privileges of my life that these two invitations were extended to me through the instrumentality of Sir Asutosh Mukherjee and Rabindranath Tagore, the two most efficient makers of this new India which no one could foresee when I first came here, one quarter of a century ago. It has been said that countries abroad are an anticipation of posterity; then I have some right to state that the names of these two great men, united in the same work, will live in the memory of men—whatever may be their other merits—as two *Śakakartris*, starters of a new era full of hope and promise.

Now thirty-nine years have elapsed since I devoted myself to the study of the past of India; I have given to these researches, with an enthusiasm which has never diminished, the best of my time and my endeavours; in the solitude of the study I have wrestled to save names, deeds, joys, sorrows from the oblivion threatening to overcome them; I have shared sincerely with the men of times gone by those vicissitudes of grandeur and suffering which have been, in all the course of time, the lot of the human race. I had but one ambition: to serve science, and by serving science to serve the truth. The chair at the Collége de France to which I was called by the Republic had seemed to me the finest and loftiest reward. I had never dared to hope that I might come some day, at the express invitation of two Indian Universities, to address an

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[1] Lecture delivered at the Calcutta University, by Prof. Sylvain Levi, D.Litt., on the 15th August, 1922.

audience of Indian students about questions of Indian history. Still I had read in one of your poets:

> द्वीपादन्यस्मादपि मध्यादपि जलनिधेर् दिशोऽप्यन्तात् ।
> आनीय झटिति घटयति विधिर् अभिमतम् अभिमुखीभूतः ॥
>
> *Ratnāvalī, I, Prolog.*

"Even from another continent, even from the midst of the ocean, even from the end of the world, suddenly the kindness of destiny brings you your happiness."

The poets are prophets. But the poet Harṣa from whom I have borrowed this verse—a verse as elegant as it is judicious,—was not a mere dreamer. Sovereign of a great empire that extended over the whole of Hindustan, concerned in the political life of all Asia, he knew the realities of life and his wisdom came to him by experience. Engaged in a conflict with a redoubtable adversary, King Pulikeśi who had barred his way to the Dakkhan, he had welcomed joyfully to his court the ambassadors of China as heralds of an alliance that was to secure his triumph. Beyond the barriers of India, he had had a glimpse of those manifold links which crossing one another from country to country, establish the deep-lying unity of the human race. It is this unity which our more accustomed eyes perceive clearly now-a-days in the whole domain of history, and of this unity even my presence here is, in its humble way, a symbol.

It is not simply from the need of idle amusement that there arises between men separated in appearance by language, customs, beliefs, institutions, the need to know, to understand, to draw nearer to one another. It was possible for a philosopher in the throes of pessimism to declare once: "Man is a wolf to man." Nature, it is true, more cruel than man, seems to delight in apportioning her gifts with capricious inequality, in sowing far and wide the seeds of hatred and causes of enmity. But man is great and noble enough to rise up against nature and bend to the service of good those very forces which seemed destined to work evil. The war that looses the fury of the present time brings about the fruitful *rapprochements* of the time to come. The Median invasions in which Greece at one moment believed that she must perish with her civilisation, her arts and her liberties, opened out to Hellenic activity a widened world. Alexander's campaign in the Panjab welded India finally together with the whole mass of countries which were soon to be covered by the one name "Roman." The history of wars, that may seem, only too easily, to sum up the whole of human history, does but mark the violent phases of a process by which humanity has come together. In the rear of the slaughtering army have come the trader, the missionary, the *savant*, the inquirer, all those agents whose anonymous work is lost to history, obscure fashioners working sometimes unwillingly and often unwittingly for a better future.

It is true that a childish prejudice tends to represent each people as the exclusive author of its own civilisation, and each single civilisation as the exclusive work of one people. Too many minds, lingering behind their time, halting at the stage of old-world humanity, believe that the barbarian countries begin at the frontier of their own native land. Think of these rudimentary maps which around the special country represented, have just a blank space, without names or signs. As if the national honour would have to suffer, should the least share of influence be accorded to neighbouring nations! The love of country, like the love of God, can degenerate into stupid fanaticism. Nothing will satisfy those afflicted with the mania of Chauvinism, but the belief that all arts, sciences, discoveries and inventions have sprung from the privileged soil that has the honour to bear them. Reality protests against this childish conception. Civilisation is a collective work in which each one labours for the advantage of all.

To go no further back in the annals of the past, which science in our days is busy in deciphering, let us glance at Greece, benefactress of the world, dispenser of beauty, wisdom and truth. There is not a people on all the face of the earth that is not her debtor. But as for her, from whom did she not borrow ? She herself has admitted that she received writing from the Phœnicians, philosophy from the Egyptians, and we, whose knowledge of her past is greater than hers, we have now penetrated beneath classic Greece to come upon an Ægean civilisation steeped in Oriental influences. The doctrine of spontaneous generation thrust out from the biological sciences by the experiments of Pasteur cannot hope to find a refuge in the historical sciences.

Let no one refute this truth by the argument that we know little with certainty of the distant past; the times nearer to our own reveal this same truth to us very clearly. I will content myself with one example: French literature. In the sixteenth century it was the study of Greek and Latin models that inspired the masterpieces of the Renaissance; a little later, it was Italy that impressed upon French mind her own taste with its subtlety and affectations ; next, Spain triumphed in the nervous and grandiose art of Corneille; then the work of Racine devoutly brings together Euripides and the Bible. England, mother of political liberty, takes the lead with us in the eighteenth century; after the Revolution follows the German romantic movement. And quite recently the Scandinavian drama and the Russian novel have left their impress on the French mind. Does that mean that a national genius does not exist ? Far from it! On the contrary it is in this process of absorption that it manifests all its power. What indeed is national genius if it is not the harmonious blending of the tastes and tendencies of the various groups which taken all together form the nation, selecting in them those features which are most permanent, most universally humane, debarring them of their narrow local or temporary fashions ?

To bring a nation into existence, it is not enough to make the frontiers of territories touch one another, to subdue them to the sole authority of a common ruler ; a brutal conqueror may found an empire by such means ; his ephemeral work disappears with him. In order that a multitude of men may come together in that higher unity that constitutes a nation, that multitude must, by triumphs and by losses, have grown conscious of a profound *raison d'être* which is the sum of its experiences, its hopes and its aspirations. There is no question here of a mystical unity, but of an actual fact. Amid all those chance groupings that the caprice of history has attempted, a national consciousness has caused only those unions to endure which were real unions, sincere, normal and deep. The temporary separations, brought about by violence, only intensify, by that very trial of suffering, the clear and vivid sentiment of national unity. The mutilated country feels the blow struck at the necessary balance of its living forces. Within an organism so powerfully constituted, a common stock of thought is soon formed by the very play of the forces of life. As occasion arises and doctrines or works are submitted to the test of public opinion, agreement or disagreement finds expression and reveals a residue of general preferences which take final shape in a choice of works or ideas established thenceforward as "classic."

Thus the function of a national genius is essentially that of criticism ; creation must remain the privilege of exceptionally gifted personalities. Still, we must recognize that even in this domain of creations, society exercises its influence in some degree, since the preferences that it expresses tend to prepare beforehand a certain framework within which creative invention shall work.

Thus vanishes the antinomy that some have attempted to assert, between national genius and foreign contributions. In that perpetual movement of exchanges by which all products of human activity pass into circulation, national genius selects with the sure judgment born of experience, that part which it deems useful to assimilate, and it eliminates the rest. It enriches its own store without alteration of its character, at least so long as it remains free to act according to its own proper taste; bound up as it is with the existence of the nation, its fate must be to disappear with the nation to which it has given self-expression. Greece conquered had been able—according to the celebrated phrase of the poet Horace—" to conquer her fierce conqueror " (*Græcia capta ferum victorem cepit*), but the Greek genius did not long survive the independence of Greece. Yet, if its productive force had vanished, a fecundating power, so to speak, persisted even in its lifeless body. And when rediscovered by the Christian West after centuries of oblivion, Greece gave her the Renaissance and changed the course of history.

India, however, to all seeming, has escaped the general law. Her traditions, preserved in the immense literature of the Brahmans, hold no precise knowledge of the world around her. Nature herself seems to have delighted in marking round about her a frontier of splendid isolation. An unbroken line of colossal mountains bars the way on the North; to the East and West a perilous Ocean bathes the inhospitable coast; between the sea and the mountains, a desert of moving land serves as a defence of the threshold lying open along the course of the Indus. One might say that some malicious divinity had wished to attempt here, in ideally favourable conditions, some experiment on humanity in a hermetically sealed vessel. Society, for its part, has set itself to aid nature in her work. It would be difficult to find elsewhere a system of institutions so resolutely planned to exclude the stranger. I need not lay stress on the originality of the caste-system. One may extol the services that it has rendered to India or pass judgment on its grave drawbacks; whatever opinion one may hold on the subject, it must be admitted that, in principle, it has raised round about India an impassable barrier. Elsewhere it is possible to aspire to the *droit de cité*, to naturalisation; here you must resign yourself to remaining for ever outside, if chance has not automatically thrown open the door to you by right of birth. These singular conditions combined to effect the production of a type of humanity unique in its composition, and which we scarcely know how to define. India is not a unity in the ethnological sense. There is not a people that reveals so clearly as India extraordinary diversity of origin. India is not a unity in the linguistic sense, the languages of India are even more numerous than races. And yet India is not a mere geographical expression devoid of human value, determined only by the nature of the ground, by elevations and depressions.

No one can dispute the existence of an Indian civilization, characterised by the predominance of one ideal, of one doctrine, of one language, of one literature and of one social class. From the Himalaya to Ceylon cultured minds and simple souls alike believe in the same transcendental law—the "Dharma" bound up with eternal transmigration "Samsāra" and the inevitable recompense of acts from existence to existence "Karman." Religions and philosophies agree in preaching the nothingness of the individual and the vanity, the illusion of things. Sanskrit, the language of the gods, has enjoyed a prestige for two or three milleniums. Vyāsa, Vālmīki, Kālidāsa, are unanimously held to be models of taste, of poesy and of style. The Brahmin is everywhere venerated as a sort of divinity on earth. But India is a proof of the fact that a civilisation is not enough to form a nation. A comparison with the great peoples of classic antiquity will show only too clearly what is wanting in India. And when I speak of "India" it is of ancient India that I mean to speak; I must refuse resolutely to take any part in the controversies and the passions of the present moment. The science that desires to remain faithful to the sincere worship of truth must hold aloof on those serene heights "*templa serena*," extolled by the Latin poet—or to borrow the language of Buddhism on "the plane of laws"—"*dharmadhātu*" where phenomena, sublimated as it were, lose these potentialities of defilement and disturbance that are by nature inherent in them. You all remember that admirable scene in Śakuntalā where King Duṣyanta comes down again from the Paradise accompanied by Mātali in Indra's chariot. He is still thrilling with the battle just waged against the demoniac *asuras*—his heart still throbbing at the thought of the well-beloved consort whom he had refused in a moment of forgetfulness, the overwhelming tumult of passions stirring the very depths of his soul.

But the chariot in its airy flight draws near to the sacred hermitage where the ascetic Kāśyapa practises and imparts wisdom; and suddenly the king is aware of an inward peace that has never before had any hold on him. Then he is worthy of making his way into the refuge of the wise, where he is to receive a supreme favour at the hands of the Destiny. And we too, on the threshold of that domain where radiant science holds her sway—we must leave behind us all vain unrest, if we are to make ourselves worthy for beholding at least something of the bright light of truth.

As I have said, India though united by a common civilisation could not become a nation. This vast body had been wanting in the hierarchy of functions which in the higher organisms directs, controls, and distributes the movements of life; the nation, like the individual, has a heart and a brain, centre of a perpetual exchange of collective activities, —the centre where they converge and from which they radiate. Nothing essential can be done save through them. The most distant accidents that befall the organism, are registered in them and re-act upon them; the shocks that disturb them affect injuriously the vigour and power of endurance of the whole.

Greece, divided up into innumerable cities, dispersed, as it were, in fragments, far and wide across the seas, from the

Asiatic sea-board to Sicily, gathered around Athens; strike out Athens and the history of Greece is but dust. The Roman Empire, though extending from the Atlantic to the Euphrates, is bound up indistinguishably with the capital; the last classical poet Rutilius Namatianus summed up the work of Rome in the striking phrase: "that which was formerly 'the world' that thou hast made 'the city'"—*Urbem fecisti qui prius orbis erat.* It would be idle to point out here what London is for the British nation, and Paris for the French nation. With these names before us, names that are, so to speak, synthetic, where shall we look for the centre of India? At Benares, the very heart of intense religious activity, but which has played no part in the political life of the country? At Pāṭaliputra, at Kanyākubja, at Ujjayinī, at Puṣkalāvatī, at Pratiṣṭhāna, at Kāñā—so many capitals that have shone with ephemeral splendour to sink later into *banal* mediocrity? Like the phosphorescent flames that kindle and flicker out, at haphazard, in the silence of the vast night, these names have vanished ere they could arrest the chronicler's gaze. And it is this that reveals yet more cruelly, the woeful incoherence of this mighty mass.

India has no history. A nation, like a family, has her archives in which she stores up and watches with zealous care those titles of nobility that are the honour of her past and the guarantee of her future. She has her annals, which, while the fleeting generations pass, assert the conscious continuity of a collective task. She has her great men in whom she delights to embody her ideal; she venerates them as her guides and protectors in the perplexing ways of the time. She defends their memory zealously from the threatenings of oblivion; she gathers up like precious relics even the smallest hints that are distinct in the memory. India has indeed saved some great names of her past, religious or literary, but she has only saved them to drown them in the mist of dreams or in the contradictory fantasies of fiction. She has had a Śankara, as great, perhaps as a Luther. What has she made of him? A hero of common miracles or scholastic tournaments, so dull, so colourless, so flaccid, so unreal, that she has shifted him hither and thither anyhow from millenaries before Christ to the first millenary of the Christian era. Not one name, not one fact to fix with exactitude his place in the succession of centuries. And yet we have here a commanding personality, a personality that marks one of the decisive phases of human thought and survives still stamped upon the soul of the India of to-day. India has had a Kālidāsa, an exquisite poet and ingenious creator of forms and images, harmonious interpreter of the most noble emotions. What has she made of him? A hero of witticisms and spiteful tricks whom she attaches indifferently either to the court of a King Vikramāditya, relegated to the first century before the Christian era, or else to the court of King Bhoja who reigned ten centuries later. As a compensation she has most abundant details on the Pāṇḍavas, on Rāma, on the innumerable figures of epic legend, figures which she may be justly proud to have created since she has made them depositaries of a magnificent ideal; but, wrapt in her own dreams, she has chosen to yield herself up to them by fleeing from the less pleasing spectacle of the reality. And by an anomaly unexampled in the rest of mankind, it is from foreign teaching that India has begun to know her true greatness. She had forgotten the greatest of her sons, the Buddha. While Tibet, China, Corea, Japan, Indo-China piously repeated the story of the Master's life with gaze turned towards his birthplace, India that had given him birth, no longer knew anything about him. In vain did Nepal preserve in her valley the Sanskrit originals of the sacred texts; in vain did Ceylon despite revolutions, invasions and conquests, preserve faithfully for more than 2,000 years the three Baskets of Buddhist scriptures compiled in an Indian dialect, the Pali language, younger brother of Sanskrit; the name of the Buddha execrated at first by Brahmanism in its day of triumph had soon disappeared amid universal indifference without once calling forth a single effort of sympathy or curiosity. It is Europe that has given back the Buddha to India. Europe by her travellers, missionaries and scholars had discovered all the way from the Tibetan plateau to the shore of the Pacific the splendid traces of Buddhist activity. She desired to know more. Both Hodgson and Burnouf contributed to knowledge, the one supplying materials, the other, facts. And India, astounded, was taught by the admiration of the world, the greatness of the son that she had scorned.

Among the kings of India there is one who eclipses even the most glorious: that one is Aśoka the Maurya. Lord of a mighty empire, founded by his grandfather, enlarged by his conquests and extending over the whole of India, he had assumed the task of practising and propagating righteousness: his edicts, graven on rocks and pillars in all the provinces under his dominion, preach in simple and familiar language the loftiest lessons of goodness, gentleness, charity and mutual respect that humanity has ever heard of. But, for long centuries the characters in which his edicts were written were but lifeless letters; it needed a Prinsep to wring their secret from the stones grown mute and to bring to light that splendid period in which Hindu policy, encouraged and sustained by an active faith, claimed influence extending even to Cyrenaica, even to Epirus, on the confines of the Roman and the Carthaginian world. Amid the teeming abundance of Sanskrit literature, India gave birth to an exceptional genius, born to lead in every sense, and to dare all things: Aśvaghoṣa. He stands at the starting point of all the great currents that renewed and transformed India, towards the beginning of the Christian era. Poet, musician, preacher, moralist, philosopher, play-wright, tale-teller, he is an inventor in all these arts and excels in all; in his richness and variety he recalls Milton, Goethe, Kant and Voltaire. But thirty years ago there was not even a bare mention of Aśvaghoṣa in the literary history of India. Aśvaghoṣa is in the fullest sense a conquest of Western learning. It is superfluous to prolong the list; it affords with sufficient clearness a glimpse of all that India in the awakening of her consciousness owes to Europe. It shows—to the disadvantage of India, certainly—to what perils is exposed a people that claims to hold itself aloof from the movements of universal civilisation.

But has India ever truly realised that conception of aloofness? Since the invasion of Mahmud of Ghazni, after the year 1000 of the Christian era, facts give only too clear an answer. India, offered up as a prey to greed, to contention and rivalry on every side, is riveted to the history of Islam and the destinies of Europe. Again, if we go back to the remote past, this mirage of isolation vanishes in the light of facts. The first ray that illumines the threshold of Indian history proceeds from a cuneiform text discovered in the neighbourhood of Armenia. The documents of Babylon and Persia help us next to cast a few gleams of light on the dense darkness of distant centuries. Then arises Greece and her radiant genius seems to bring a definitive awakening to the world. Without her the history of India could be only enigma and confusion; by her, order and precision are brought into the history of India. The identity, recognised by William Jones, of the Indian Chandragupta and the Sandrocottos of the historians of Alexander, remains the corner-stone of all Indian chronology. During a period of a thousand years, the history of India is to a great extent the history of the knowledge possessed by the Greeks concerning India.

From this prolonged contact we have the problem of reciprocal influences, which puts the question of the originality of the Indian genius. Towards the beginning of the Christian era China, in her turn, comes into touch with India and for a thousand years religious zeal, political and commercial relations draw the two countries together. The exchange takes place along by two ways, the land-route which skirts or crosses the heights of the Pamir and, proceeding from oasis to oasis passes over the sandy deserts of Turkestan; the sea-route which, by way of Insulindia, connects the Indian ports with the Chinese ports. The meeting of the two civilisations produces, on either side, a strange amalgamation: on the one hand "Serindia" as the Greeks said in the time of the Emperor Justinian, on the other hand Indo-China, as we say to-day, both being equivalent terms which point to the zone of unstable balance between two rival tendencies, two rival languages and rival societies. In this concealed struggle India appears to triumph for a fairly long time. Recent explorations in Central Asia have revealed unexpected annexations to the Indian world; rather earlier, but also in recent times, study of monuments and inscriptions has brought to light the existence of Hindu colonies in Indo-China and Insulindia, faithful guardians of the arts, the religions and the literary works of India. Finally, in the seventh century Indian Buddhism conquers yet another field for Indian culture: in the highlands of Tibet a rude and barbarous population sees monasteries rise where zealous missionaries translate from the Sanskrit the enormous mass of the canonical texts.

Thus from the Mediterranean to the Pacific ocean, nations near and far gather round India and bring together converging rays to shine upon the voiceless night of her past. The picture that emerges is not, to be sure, as clear and complete as we could wish; too often the documents say nothing or break off just at the moment when curiosity is on the track; too often, besides, the portions upon which light is thrown give us minute details which, by their seeming insignificance weary and discourage the student. However it is, this is the work which I am pressing you to pursue, for the sake of truth and of your own country. Some people may tell you that it is an idle and useless work, and that the crying need of the present is for chemists and engineers. I do not at all belittle their work, in so far as it can make that painful human life easier and smoother. But we have been taught of late by a dreadful instance how much the most technical civilisation can be foreign to real civilisation, civilisation of the mind. Never has the beautiful saying of Buddha proved so deeply true as now:

मनःपूर्वंगमाधर्मा मनःश्रेष्ठा मनोमयाः

> "Mind takes the lead of the world; mind excels the whole world; the world is a creation of mind."

In this time of sky-scrapers and gigantic bridges, mind only can build and will build a safe bridge for India to cross over the ocean of darkness and storms and to reach that "other shore" of peace and dignity for which she has been longing through centuries. India wants you to be her *Tīrthaṅkaras*; but how can you show her the way forward if you have not traced back the steps which have brought her to her present stage? You wish your motherland to stand honoured and respected among the nations, but how tremendous the experimental stages you have to pass through, if you are not fully aware of the genuine forces which allowed her to play, long ago, such a big part in the development of Eastern civilisation? Old India, the mother of numberless children, who has passed through days of triumph and ages of sorrow, the ever-rejuvenating mother of numberless children to come, is standing before you, anxious about her way. It is not enough to worship your mother. Help her!

SYLVAIN LEVI

FIFTY-EIGHT YEARS' FIGHT WITH MALARIA

I

The delta of Bengal having been built up by rivers is a land of marshes. Consequently, it is but reasonable to conclude, that ever since it became habitable, it suffered more or less from paludism or malaria. So far as the writer is aware, however, the first authentic reference to it is by Abul Fazl, who says in the *Ain-i-Akberi*; "For a long time past the air of Bengal had been unhealthy at the leaving off of the rains, afflicting both man and cattle (?); but under the auspices of his present Majesty, this calamity has ceased."[1] The next reference is to an outbreak of epidemic malaria at Kasim Bazar and adjacent villages in the beginning of the last century. These villages "were situated on a curve of the River Hooghly [Bhâgirathi] until a straight cut was made...forming the chord of the curve, thus changing the course of the river and throwing those places inland. This engineering operation was closely followed by the breaking out of an epidemic in all those places which, in its virulence and mortality, is unparalleled by any pestilential visitation in Bengal saving, perhaps, that which depopulated Gour. During its rage cremation or burial in due form was found impracticable, and the dead are said to have been carried in cart-loads to be disposed of anyhow; and thus the city of Cossim Bazar, once noted for its commercial importance, the extent and magnitude of which is said to have called into existence upwards of a hundred shroffs or banking firms to meet the monetary requirements of the same, was reduced, within the short space of five years to almost a deserted waste."[1]

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[1] *Op. cit.* (Gladwin's translation.—The Subah of Bengal)—Unfortunately, no details are given of the anti-malaria measures adopted by Akbar. In the Malaria Conference held at Simla, in 1909 Sir Herbert Risley said that he "happened to know that in a certain district in the South of Bengal they had a very ancient, elaborate and effective system of village drainage....Subsidiary to the rivers and large drainage channels there was a regular system of drains." (Proceedings, p. 99.) It would be interesting to know the situation and date of this drainage system. It may have been a part of Akbar's anti-malaria measures.

The next occurrence of epidemic malaria was in 1836 at Muhammadpur, which at the time was a very large and flourishing town in the district of Jessore, during the construction of the Jessore-Dacca road. It broke out among five to seven hundred prisoners who were employed on the construction of the road. "One hundred and fifty of the prisoners died, and the native officers in charge of them fled. The epidemic remained in Muhammadpur for about seven years; and what between the great number of deaths from fever itself and the crowds who fled to escape the plague the total desolation of the place ensued."[2] There was another outbreak in Jessore in October, 1846.[3]

But, these were sporadic outbursts due to local causes. Bengal, on the whole, continued to be fairly healthy and prosperous until about 1860. The first famine she suffered from was in 1769-70, nearly a century before that date, and the second in 1873-74, about a decade and a half after it. Macaulay writing only two decades previously describes Bengal in the following glowing language:

"Of the provinces which had been subject to the house of Tamerlane, the wealthiest was Bengal. In spite of the Muslim despot and the Mahratta freebooter, Bengal was known throughout the East as the Garden of Eden, the rich kingdom. Its population multiplied exceedingly. Distant provinces were nourished from the overflowing of its granaries, and the noble ladies of London and Paris were clothed in the delicate products of its looms."[4]

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[1] Minute by Raja Digambar Mitra appended to the Report of the Malaria Commission of 1864.

[2] Hunter's "Statistical Account of Jessore," p. 212.

[3] Hunter, *op. cit.*, p. 335.

[4] "Critical and Historical Essays—Lord Clive."

Districts which during the last six decades have been devastated by malaria were among the healthiest. The District Gazetteer notes in regard to Burdwan, that "before 1862, the district was noted for its healthiness, and the town of Burdwan particularly was regarded as a sanitarium. In fact, it was customary for persons suffering from chronic malarial fever to come to Burdwan where cures from the disease were common." Dr. A. J. Payne in a report on the Burdwan Division submitted in 1871 remarks, that "a fatal fever has of late years become epidemic, with seasonal outbreaks of extreme severity over a large tract of country which includes districts formerly among the healthiest in the province." In the beginning of the nineteenth century there was a College at Baraset for cadets on their first arrival from England which would not have been the case if it had been so intensely malarious as it has been for sometime past. In regard to the district of Nadiya which is now being depopulated by malaria, the Census Report of 1901 observes that "it was once famous as a health resort, and it is said that Warren Hastings had a country house at Krishnagar." Dr. R. F. Thompson says of the Hooghly district in his Sanitary Report of 1868, that "if a common belief or impression among natives is of any value, the Hooghly district would seem to have undergone a vast change for the worse in respect of the health of the people." Midnapore was practically free of malaria in the beginning of the last century. Even as late as 1851-52, of the total admissions for treatment at the dispensary there only 4 per cent. were cases of intermittent fever. "In regard to the History of Bengal Malaria," says Dr. Bentley, "and the question as to whether there has or has not been an increase of the disease in comparatively recent times, an examination of existing records seems to afford overwhelming proof that many areas now suffering intensely from malaria enjoyed a relative immunity some 50 to 60 years ago. Recent investigation has shown also that in certain localities a rapid increase of infection has occurred within the course of the last 10 years."[1]

The most virulent and the most widespread type of epidemic malaria began to rage only since 1860. The fact that it was known among the people as "*nutan jvar*" (new fever) shows that nothing like it had been experienced before. Contemporary records contain harrowing accounts of its ravages. At Burdwan, in 1862, large numbers dying daily were carried in carts. Dwarbashini, a large and populous village in the district of Burdwan was nearly depopulated. At Kalna in the same district, "a great number of homesteads had been deserted, and there was scarcely a house in which several inmates had not been carried off." Kanchrapara lost 1,354 out of 3,326 residents. The Commissioner of the Presidency Division wrote in a letter in July, 1864, about the district of Nadiya: "Every village has its homesteads which have been emptied by death or deserted by the occupants in order to escape the scourge. Almost every man I met had a story to tell of his own suffering which his appearance confirmed, and a list to give of parents, wife, children, or relatives carried off. In some villages above a third of the population must have died within the last three years, and I have been assured by two respectable inhabitants of Halishahar, that the state of debility to which the adults of the village have been reduced is so universal and so extreme, that accessions to the population from the most natural source have ceased."

The first Malaria Commission was appointed by Government in January, 1864. Since then some Committee or Conference has met nearly every quinquennium to deliberate upon the remedial measures for malaria; and as for experts, engineering and medical, and other high officials who have reported upon the subject, or penned minutes, circulars and resolutions, their number is legion. The archives of Government are groaning under the weight of leaflets, brochures and tomes recording the researches, disquisitions and opinions of these high functionaries. And as I am writing (July, 1922), a new committee is about to begin its labours to add to that weight. There have been endless Councils of War, but little actual fighting.

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[1] "Report on Malaria in Bengal," Pt. I, p. 74.

As we shall see later on, if the suggestions of the first Malaria Commission were acted upon, Malaria would have been considerably crippled and Bengal would probably have recovered the health it had enjoyed before 1860. But the fiend in contemptuous mockery of the scriptory fusillade of Government has been fearlessly stalking the land during the last fifty-eight years unrestrained in its nefarious activities. The bureaucracy apparently to save its face and hide the ignominious defeat it has suffered publishes elaborate schemes formulated by the generals of the force maintained for fighting malaria, and occasionally announces the discoveries made by them of the weak points in the enemy's stronghold. The venerable Minister in charge of the Public Health of Bengal gave an account of such discoveries at the Legislative Council of Bengal last year. I wonder if he was aware that he was unconsciously treating the Council to a piece of composition, for the like of the humour of which one would have to turn to the pages of "Pickwick Papers" or "Gulliver's Travels." Sir Surendranath Banerjee, who has enthusiastically girded up his loins to carry on a vigorous campaign against Malaria, gravely announced as one of the "important facts" revealed by the researches of the Health Department, that "following upon an increase of malaria and a corresponding rise in the mortality, depopulation of the affected villages commences, and simultaneously land goes out of cultivation, homesteads are deserted in the villages, and an increase of jungle and useless vegetation occurs." I wonder if the mofussil members of Council could suppress their risibility when this "important fact" was announced. The spirit of Raja Digambar Mitra would stand agape with amazement (not unmingled with gratification) at the "discovery" that "the construction of embankments in low lying areas whether for roads, railways or other purposes, is almost invariably followed by an increase of malaria as shown by a rise in the spleen rate, the sickness rate, and the mortality of the affected areas."

Another momentous discovery: "Malaria in the low-lying areas is not usually associated with excess of water, as has long been believed, but that, on the contrary, it usually increases coincidentally with an actual diminution of the water present on the land during the rains." I do not know whence the Director of Public Health got the idea that malarial fever had hitherto been "usually associated with excess of water." The contrary has, so far as the writer is aware, been the prevalent belief of the people in Bengal. Some doubt appears to have crossed the mind of the Honourable Minister as to whether these discoveries should be placed in the category of "original discoveries." For, he observes: "whether or not they are to be classed as 'original discoveries' is possibly open to discussion, but the fact remains that at present these discoveries are not to be found in any published text-book on malaria." I am afraid, in trying to emblazon the reputation of the Heads of the Health Department he has unwittingly tarnished it by supposing them capable of claiming as discoveries facts which do not occur in published text-books on malaria. I do not know of any such text-book which gives information of any great value about malaria in India. But in regard to one of the discoveries, I find the following passage in "Prevention of Malaria" by Sir Ronald Ross (pp. 277-278): "Marshes difficult to deal with are often formed by roads, railways, houses, irrigation canals, ill-managed water conduits and standpipes and even by badly made drains." In regard to another discovery, the following statement by Dr. Maclean is quoted from Quain's Dictionary of Medicine," p. 913, by Dr. Gregg, who was for sometime Sanitary Commissioner for Bengal, in a circular letter to Municipalities (1889) : "Marshes are not as a rule dangerous when abundantly covered with water ; it is when the water-level is lowered, and the saturated soil is exposed to the drying influence of a high temperature and the direct rays of the sun, that the poison (malaria) is evolved in abundance" (Dr. Maclean wrote before the establishment of the mosquito theory).

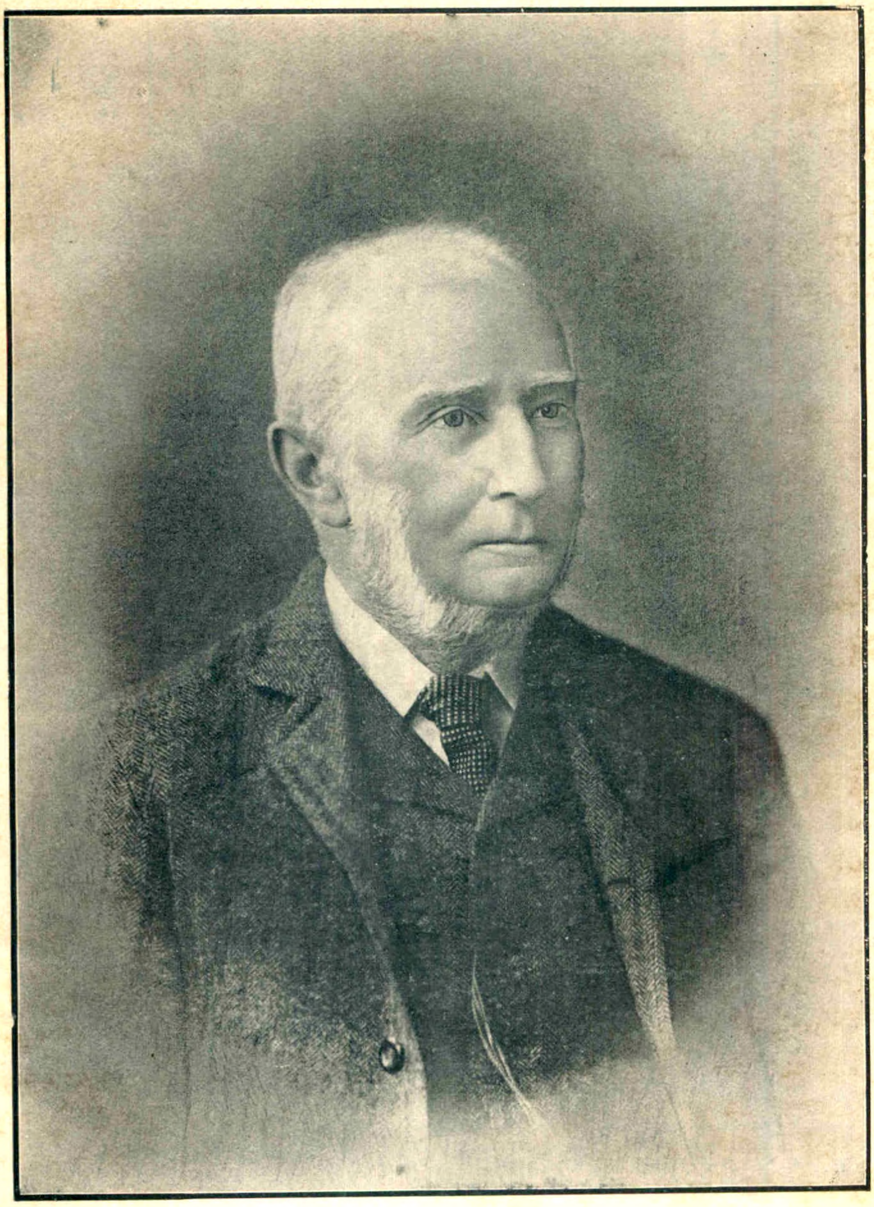
(*To be continued*)

P. N. Bose

CHARLES H. TAWNEY

In the Eighties of the last century the name of Professor Charles H. Tawney was a household word in educated Bengal,—and in more than Bengal. The slanting crawl of his autograph—much sought after then as now, in spite of the prevailing spirit of disruption—at the foot of University Certificates, was appreciatively preserved in thousands of homes, not merely in Bengal, Behar, Orissa and Assam, but also in what are now the United Provinces and the North Western Provinces and in Burma, Nagpur and Ceylon, all which were under the fostering care of the University of Calcutta, during much of the time that Mr. Tawney was its Registrar. He held this important post from 1877 to 1881, from 1884 to 1885 and in 1886 and 1889. Many generations of Calcutta graduates and undergraduates had some thing or other to do with him from 1864 to 1893. The touching words of the inscription on the pedestal of his bust at the Entrance Hall of the Senate House of the University, remind after-comers of many hundreds of his "pupils' and friends' grateful recollection" "of his unvarying kindness," during his "career of 28 years in India." It was service, long, meritorious and fruitful such as few could claim to their credit. And when he retired from India in 1893 he did not give up serving India. As Librarian of the India Office till 1903, his interest in India and matters Indian, was continuously maintained and even when he retired from the India Office in that year, he kept up constant correspondence with those he had known in India and through whom he had learned to revere India.

Professor Tawney's name was not a commonplace household word in Bengal, as that of a work-a-day administrative



CHARLES H. TAWNEY

(*By courtesy of the Presidency College Magazine*) officer, who filled space merely occupied by routine duties; it was honoured by hundreds who had sat at his feet and profited by his teaching. Among these are to be found men in the forefront of public, professional, industrial and official life in Bengal, men who have contributed enormously to the building up of the prevailing order of things in the country, call it nation-building or whatever else one may like. Many of them have been called away to their rest prematurely and those that are spared will recall with affection and veneration the many qualities of their revered Professor, who—in his turn has been called to his rest, at the ripe old age of 85. In his retirement at Charltey, Camberley (Surrey), Mr. Tawney used to spend the evening of his days in a predominantly Indian atmosphere, surrounded by his books and manuscripts that had become his life-companions and essential to his existence. Though never very strong, he enjoyed fairly good health, till his wife's death last year wrecked it altogether. It was my misfortune and will be my abiding regret that both in 1912 and 1921 I was unable to avail of his pressing, cordial and repeated invitations to spend some time with him in his Surrey home. His advancing age and infirmities did not permit his travelling to London often and his friends saw but little of him there in recent years.

There must be many who remember Mr. Tawney's scholar-like stoop that had come upon him even in the prime of his life, his gentlemanly bearing, his spare slim figure, and the firm, steady, measured step with which he silently traversed the corridors, on his way to noiseless discharge of unending duties. His was pre-eminently "the leaden eye that loves the ground," and though he seemed not to observe, woe to unwary and the careless who thought that the least of wrong doings escaped his notice. Those who believed that Principal Tawney knew not his students, their faces and their names, sometimes had a rude disillusionment. But he never mauled any and things soon corrected themselves. His innate and unobtrusive kindliness took the place of what goes by the common name of tact and always prevailed.

His thin compressed lips, his quivering nostrils, according to some, the hall-mark of dignified restraint, were a great aid in disciplinary action. *Principal* Tawney never failed as an administrator; and *Professor* Tawney's unspoken wishes always maintained order in and out of the class room. And what remained was finished soon enough when his fine sense of humour in which he was never lacking, lightened up his austere countenance and the disciplinarian and the students' friend formed an indivisible entity and prevailed unquestioned. Following a great administrator and organiser as Principal Sutcliffe, Principal Tawney's work was naturally difficult; but the gentleman and the scholar; above all the Man, triumphed. And that it is, after all, that really matters and triumphs. It is a pity that this little truth is not often recognised and remembered.

His clean-shaven upper lip and chin, his spare side-whiskers, provokingly mid-Victórian, his prominent forehead, and sunken cheek complete the outlines of his well-remembered physiognomy. A sharp nasal twang, not quite American, but characteristic, slightly marred his clear and beautiful pronunciation at times and interfered with his diction. It amounted almost to mannerism. Though anything but fasionable, he was scrupulously neat and correct in his attire, which marked him out among colleagues like Sir John Elliot, Mr. Clarke and Dr. Booth, almost scrupulously untidy in their get-up. The little Brougham much fancied in those days by doctors and others, that brought him to the College and waited for him with its horse taken off, used to be three quarters filled with the spoils of the library and it was with some difficulty that his pepper and salt morning coat escaped being creased, while mercilessly brushed against dusty tomes both ways to the College and fro. A straight diagonal—a veritable bee-line, from the portico of the Presidency College to the gate of the Hare School, past the Hare statue—took him to the Senate House, where the faithful Trailokyanath Banerjee used to keep his work cut out for him.

Professor Tawney early made his mark in the Presidency College. This was no easy task, for among his colleagues at the beginning and later, were capable and distinguished men and devoted teachers who made the Presidency College what it was in the Seventies, Eighties and Nineties of the last century. Some of them were outstanding landmarks in the Educational field and a few were veritable giants. It was an illustrious roll of which any institution in any land might well be proud—Moheshchandra Banerjee, Ishanchandra Banerjee, Pearycharan Sarkar, Prasannakumar Sarvadhikary, Rajkrishna Mookerjee, Krishnakamal Bhattacharyya, Sutcliffe, Croft, Beeby, Pedler, Elliot, Clarke, Robson, Rowe, Webb, Paulson, McCan, Wilson, Mann, Hand, Gough, Hoernlae, Little, Gilliland, Booth, Nash, Edwardes, Bellet, Percival, Bipin Gupta would be honoured names anywhere. And the outturn was also worthy, for among it rank men like Bhupendranath Basu, Asutosh Chaudhuri, Byomkesh Chakrabrarti, Suryyakumar Agasti, Nandakrishna Bose, Herambachandra Maitra, Kallysankar Sukul, Govindachandra Mookerjee, Dwarkanath Chakerbutty, Nalini Chatterjee, Narendralal Dey, Amulya Chandra Mitra, Digambar Chatterjee, Ramnath Bhattacharyya, Ramchandra Majumdar, Baradacharan Mittra, Shamsul Huda, Abdur Rahim, Abdur Salem, Jogendrachandra Ghosh, Asutosh Mookerjee, Senior and Junior, Hem Chandra Sen, Kedar Nath Sikdar, Bipinbehary Ghosh, Charuchandra Ghosh, Mohinimohan Chatterjee, Pankajcoomar Chatterjee, Binodechandra Mittra, Prabhashchandra Mittra, Brojendralal Mittra, Nripendra Nath Sirkar, Sureshprasad Sarvadhikary, Jotiprasad Sarbadhikari, Jogenchunder Dutt, Satyendraprasanna Sinha, Satyacharan Mookerjee, Jogendrachandra Mukerjee, Ramsadan Bhattacharyya and Praphullachandra Ray, to speak only of a few nearest to my time and whom I knew best. There were many before and after these times, who were quite as worthy, some worthier.

The background formed by professors and pupils like these, was no unworthy scene of Professor Tawney's toils and he toiled hard and unobtrusively for a long stretch of 28 years, during which he assisted in keeping the College and the University flags flying. The tone and standard maintained were the best and the highest. During these 28 years, Professor Tawney, in the words, of the inscription on the pedestal of his bust, "rendered conspicuous services to Education, as Professor and Principal of the Presidency College, as Director of Public Instruction, Bengal, and for eight years as Registrar of the Calcutta University."

The story of Professor Tawney's life is quite shortly told. It was uneventful in a sense, as such lives go; but it was full, rich and ample and replete with far-reaching results.

He was son of Rev. Richard Tawney, Vicar of Willoughby, and Susan James (daughter of Dr. Bernard, of Clifton). He was born in 1837 and inherited the scholarly and clerical instincts both of the father's and mother's side, though of clerical tendencies he never gave much indication. Educated at Rugby and Trinity College, Cambridge, his early tendencies had the fullest possible scope. He obtained the Bell University Scholarship in 1857 and the Davies University Scholarship in 1858. In the same year he became a scholar of Trinity and was bracketed as Senior Classic in 1860. He obtained the Fellowship of Trinity in 1860 and worked as a Fellow and as a Tutor in his College for 4 years, which gave him abundant grounding and opportunities of cultivation of his special tastes in Classics.

In 1864 he was appointed as Assistant Professor of the Presidency College and soon became a Professor. Subsequently he rose to the Principalship, on the retirement of Mr. Sutcliffe in 1877. He held the post of Principal till 1891. For eight years off and on, he was Registrar of the Calcutta University and thrice officiated as Director of Public Instruction, Bengal, till 1893, when he retired to England. After this he took up the post of Librarian to the India Office. He filled that post till 1903 and was made a Companion of the Indian Empire. On his retirement Mr. Thomas was appointed to this office. It will be remembered that Mr. Thomas visited the Calcutta University last year and lectured there on Indian History.

Mr. Tawney was appointed a Fellow of the Calcutta University quite early in his career—in 1869; he took keen and active interest in the details of University work from the very beginning. Without such interest no one makes any advance in academic life—a slight truth that is often forgotten by aspirants after academic honours. In 1869 he was appointed a member of a Sub-Committee to prepare an Address to be presented to H. R. H. the Duke of Edinburgh. This was the first time that a member of the British reigning family visited India and the University rightly extended its warm welcome to His Royal Highness; Honorary Degrees were then not in vogue. In 1885 we see him appointed member of a Committee to consider the subject of remuneration to Examiners and also of the Board of Moderators in Arts and Science, which was just coming into existence. In the same year he acted as member of a Committee appointed to consider and report on a letter from Rev. J. Hewlett proposing that the system of prescribing text-books should be less adhered to. This shows how public mind was being agitated in these directions even in those early times, in spite of which text-books flourished. In 1889 Mr. Tawney was appointed a member of the Committee formed to revise the rules for (1) the Entrance, F. A. and B. A Examinations, (2) the P. R. S. Examination. He was not above details as was erroneously presumed by some; in 1891 we find him appointed a member of the Committee for the election of Gilchrist scholars. He attained the higher honours also and was twice President of the Faculty of Arts, in 1885 and

1893 and he resigned his Fellowship in 1893 when he retired from the country. His interest in University work lay deeper than the surface. As early as 1865 (?) he contributed to the *Calcutta Review* a paper entitled "Studies of the Calcutta University." It will be fully worth reproduction in these pages some day, to show what great minds in those days thought about the thorny points now agitating us, few indeed of which are new.

An well executed bust in white marble, the inscription on the pedestal of which has succeeded in bringing out some of his characteristic features, commemorates Mr. Tawney's services to the cause of education in Northern India. The inscription will well bear quoting. It is in the following words:-

To

CHARLES HENRY TAWNEY, C.I.E., M.A.,

Formerly Fellow of Trinity College, Cambridge,
Late Fellow of the University of Calcutta,
And now Librarian of the India Office, London,
Who, during his career of 28 years in India,
Rendered conspicuous services to Education
As Professor and Principal
of the Presidency College, Calcutta,
As Director of Public Instruction, Bengal,
And for eight years as Registrar of the
Calcutta University
This Bust has been erected
By his Pupils and Friends in India,
Who retain a grateful recollection
Of his Unvarying Kindness,
And a Profound Respect
For the Wide range of his learning,

And for his special Erudition
In the Classical Literature
Alike of Europe and of India.

Many who wrongly thought and said that Mr. Tawney was a cynic and a pessimist and had few friends, because of saturnine disposition which he ill-concealed, will be disabused by the text of the inscription. Every word of it is strictly true and accurate. His "unvarying kindness" to those he knew and who knew him, was a notable feature of his character, and many willingly testify to it even to-day. The last four lines of the inscription were amplified in the resolutions of the Faculty of Arts, dated the 7th of January, 1893, and of the Syndicate, dated the 14th of January, 1893, which will speak for themselves.

The Resolution of the Faculty of Arts, held on the 7th January, 1893, is the following words:—

"The Faculty desire to place on record their high appreciation of the eminent services rendered by Mr. Charles H. Tawney to the University. The Faculty have had frequent occasions to observe and admire his ripe experience, his varied scholarship, his conciliatory and generous spirit and his liberal treatment of all matters arising out of the great objects of University education; and the Faculty take this opportunity of expressing their deep sense of the loss sustained by the University through his retirement."

The Resolution of the Syndicate, dated the 14th January, 1893, was:—

"That the Syndicate deeply regret that by reason of the departure of Mr. Tawney from this country, they are deprived of his invaluable aid as a Member of their Body and the University loses the distinction of counting him among its Fellows. It is not only the loss from amongst them of a scholar of such eminence that they regret, great as such a loss is, but in Mr. Tawney they also lose a colleague whose wide and varied knowledge of affairs, whose keen sagacity, whose high tone and sense of right, and whose unfailing sympathy and good feeling they will long remember with sentiments of respect and of regret. They wish him, after his return to his native country, a long life of successful labour in the cause of learning, which he is so well-qualified to advance, and which has, during his residence in India, so signally benefited by his exertions and his example."

An eloquent tribute was paid to Mr. Tawney's services at the Senate meeting and the Convocation of the University that followed and the movement which resulted in the erection of the bust mentioned above, was taken in hand by his many pupils and friends, in and outside the University.

India is perhaps the foreign country, outside Germany, where Shakespeare is most appreciated and venerated by educated people. It used to be a keen regret of educated modern Bengal that it came after the days of D. L. Richardson and that there never was another Richardson. Those that had Charles H. Tawney for their teacher overcame this regret, for there has hardly been a more capable interpreter of the Poet in India after Capt. Richardson than this gifted Professor, though he may have lacked the histrionic talents of the Captain. The Variorum Edition of Shakespeare appeared in the late seventies and was a great help to Shakespeare students, who had no direct access to the enormous Shakespeare literature to be found in western seats of culture. But before its appearance Mr. Tawney was a veritable variorum edition by himself to his devoted students. It is a pity that he did not leave behind him in a tangible form evidence of his vast Shakesperian erudition and an inconsiderable school edition of Richard III (1888) is all that he left. Enjoyment of the poet in his inner sanctum, which he sometimes managed to transfer to the class room, was Mr. Tawney's great feature and so engrossed, absorbed and engulfed did he become in this enjoyment, while lecturing, that the unthinking portion of his class believed that he took no note of it. The devoted and the elect, however, knew how mistaken this idea was and they literally hung upon every word he spoke. And sometimes the unspoken interpretation, the pause, the halt, the look, if observed, meant and conveyed volumes. Mr. Tawney was nearly as great in Milton and Burke and his inborn love of freedom and liberty, broadened during his Cambridge days was voiced, unmindful of conventional and obligatory restraint.

There was little scope for display of his Latin and Greek lore in the ordinary everyday work of the College or the University. According to those that knew and could judge, it was vast. Though there was no room for it here, Mr. Tawney made up for his loss in this direction by ardent devotion to Sanskrit, which in more sense than one, was then a live language in Bengal, much more than it is now, though the superficial area affected may have increased to some extent. Mr. Tawney devoted himself heart and soul to Sanskrit as soon as he arrived in this country and to his credit are to be placed many acceptable translations from Sanskrit into English. Some of them are Uttar Ramacharitam (1871, 1874), Katha Saritsagar (1884), Katha Kosa (1895), Malavikagnimitra (1875, 1891), Prabandha Chintamani and two centuries of Bhartrihari (1877). Immersed in his own favourite work, as he always seemed to be, Professor Tawney's was by no means an isolated and detached literary existence. He helped and encouraged others, whenever he could. He revised and partly wrote out Pandit Nilmony Naylankar's English Translation of Raghuvamsa and Bhattikavya in 1880. His interest was by no means confined to Sanskrit, but also extended to the growing latter-day literature of Bengal. One of the most remarkable productions in this direction was Taraknath Ganguly's fine social novel *Swarnalata*, which was translated into English in 1906; and Mr. Tawney wrote an appreciative preface. Translation of Katha Saritsagar in two volumes was a part of his work in the Asiatic Society of Bengal. His critical notes in the course of this gigantic work, though spare and occasional, are a notable contribution to the Science of Folklore that materialised later on. They point to the Indian origin of much that Europe appropriated.

Mr. Tawney's natural talents, taste and aptitude and his classical training were a great help in rapid acquisition of Sanskrit, affinity of which with Greek and Latin was being discussed in learned circles before Max Muller and Sayce widened the scope of these ideas. Added to his own tastes and talents was a slight topographical accident which afforded a strong secondary aid.

The Presidency College was not located, when Mr. Tawney came, where it stands to day. Lord Northbrook laid the foundation stone of the new buildings and it was opened in 1874. Before that it was located in the cramped, dark, inconvenient, old-world block now occupied by the western half of the Hindu School, across the College Street. The Hindu School was confined to the eastern block and in between the old Hindu School and the old Presidency College was the Sanskrit College, with its spacious quadrangle. In the midst of this stood the canopied statue of David Hare, now occupying the field between modern Hare School and modern Presidency College. On three sides of the quadrangle and on both floors were the Sanskrit College Class and office rooms, the fourth side being a noble collonaded open portico, that one sees from College Square, North. Both the Presidency College and the Sanskrit College were cramped for space and both requisitioned for more new rooms on the first floor, which were sanctioned. Principal Sutcliffe of the Presidency College believed in the Inch and Ell theory of life, and put in a claim for the old first floor room on the south of the quadrangle, where the valuable manuscript treasures of the Sanskrit College were housed. Director Atkinson seconded the claim and the Lieutenant Governor agreed. Pandit Iswarchandra Vidyasagar had left the Principal's post and a Kayastha Principal—Principal Prasannakumar Sarvadhikary—was in office. His known sweetness of temper and amiability of disposition were attempted to be exploited; but true as steel, he could be strong when occasion needed and was strong on this occasion. He revolted entirely and rather than see the beloved manuscripts go to destruction in the damp ground floor, he resigned. He ultimately prevailed, the wanuscripts were undisturbed and the Presidency College had its new buildings later on.

During this struggle, which was long drawn and intense, Professor Tawney's moral as well as active support was throughout in favour of Principal Sarvadhikary; he was as ardent a lover of the red-clad board-backed manuscripts of untold value. Professor Tawney's own chief and other high officials were disgusted and Principal Sarvadhikary and Professor Tawney, with affinity of tastes, became fast friends. It ripened after the storm blew over and lasted. The resources of the Sanskrit College Library and its Professoriate were entirely at Mr. Tawney's disposal. And what a Professoriate it was. Premchand Tarkavagish and Joynarayan Tarkapanchanan had been succeeded by Bharatchandra Siromani, Taranath Tarakavachaspati, Grishchandra Vidyabhushan, Dwarkanath Vidyabhushan, Ramnarain Tarkaratna, Harinath Nayaratna, Jaganmohan Tarkalankar, Rammoy Vidyaratna and Maheshchandra Nayaratna.

For natural and obvious reasons it is not for me to dilate on Principal Sarvadhikary's powers and attainments as a scholar and as an administrator; but it would be incomplete narration not to refer to his part in the shaping out of the growth of Sanskrit and Bengali Culture and Literature, which were then turning into quite an untrodden path.

Pandit Iswarchandra Vidyasagar and Babu Prasannakumar Sarvadhikary were old school friends. They came from the same part of the country, chummed together, toiled and struggled together and triumphed together. They taught one another Sanskrit and English and the literary partnership continued, the result of which were Vidyasagar's Vetal Panchavimsati, Sitar Banabas, Vrantibilas and Sakuntala and Prasannakumar's Patiganit and Vijaganit and Rajkumar Sarvadhikary's *Englander Itihas*. Some of their students took up the work later on and Tarasankar Tarkaratna, Tarakumar Kabiratna, Nilmani Mookerjee, Narsingchandra Mukerjee, Sasibhusan Chatterjee, Khettermohan Sengupta, Krishnakamal Bhattacharyya, Shivanath Sastri and Haraprasad Sastri, Nilambar Mookerjee and Tarinycharan Chatterjee made contributions to the building up of Bengali literature, more or less rich and solid, according to the limitations of each. Iswarchandra and Prasannakumar also considerably influenced Michael Madhusudhan Dutt and Hemchandra Banerjee, as abundantly appears from their published biographies.

Vidyasagar's translations were more than translations, they were fine adaptations, almost original work, in Bengali. But whether original or translations they were works of striking merit and did great service. They were not however quite what was wanted from certain other points of view and Principal Sarvadhikary and Professor Tawney thought that close and faithful translations of some Sanskrit works of merit would be a great help in making Sanskrit literature better known outside India. In the preface to the first edition of his translation of Uttararamcharita Professor Tawney voices this idea. "The poetical translation of the play by Professor Wilson," he says, "though scholarly and spirited, departs too far from original to be a trustworthy guide." In the preface to the second edition he said that he had endeavoured to give the literal meaning of the Sanskrit "without dishing up Hindu ideas, so as to make them agreeable to the taste of Europeans." "It is absurd," he says, "to expect idiomatic English in a translation of a Sanskrit composition." "We must not be ashamed of the phrases," he continued, "that move the laughter of Englishmen unacquainted with Sanskrit."

Principal Sarvadhikary obtained the services of his friend and colleague, Pandit Girishchandra Vidyaratna well-known for his *Sabdhasar* and his edition of Vopadeva's *Mughdhobodh* and Pandit Maheschandra Nayratna for Professor Tawney. He also secured for him the willing assistance of his favourite students Krishnakamal Bhattacharyya and Narsingchandra Mookerjee. Uttar Ramacharit upon which Pandit Iswarchandra Vidyasagar's Sitar Vanavas had been based, then came to be faithfully translated by Professor Tawney in 1871. And Pandit Narsinghchandra Mookerjee translated it soon after into equally faithful Bengali, which afforded the basis of Bankimchandra Chatterjee's superb critique of *Uttarram Charit*, which embellished the early pages of the *Bangadarsan.*

Prasannakumar Sarvadhikary's devoted band of friends and students thus became the staunch supporters of the scholarly young Professor from the West, who in the battle of Libraries, in some ways similar to the battle of Four Courts, as many will remember, had loyally befriended their chief. And Professor Tawney's work grew from more to more. He was one of the few latter-day Europeans who genuinely loved India through its learning and literature, and was a worthy after-comer of Jones, Wilson and Colebrook. And he found worthy and willing co-adjutors, but for whom he could not succeed as he did.

Students of the Sanskrit College organised acting of Sanskrit plays in the late sixties and Pandit Shivanath Sastri was one of those that took part. *Veni Samhar* and *Sakuntala* were two of the plays staged at the College and the seemingly dry-as-dust Professor Tawney gave much useful help in scenic and "property" arrangements, as well as in the histrionic section of the work. His favourite *Uttarram Charitam* could not be attempted, in absence of actors who could adequately fill the subtle parts in the great drama. This is a great regret that long continued unremoved, though two rival and competing clubs exquisitely stage every year, difficult Sanskrit dramas including those of Bhas.

If among these be any admirers of Professor Tawney, mayhap, they will think of a suitable oblation to his departed spirit by staging *Uttarr.m Charit* next year or soon.

Mr. Tawney was the last of persons to appear capable of being stage-struck and his reading and interpretation of Shakespeare was anything but stagey. Dowden and Gervinus had not yet been displaced by Brandes and some enjoyment was still permissible. Whenever even a seventh rate Shakespeare Company visited Calcutta, *dhoti*-clad figures filled the auditorium to the exclusion of dainty evening dress. When the Bandmann Boudaix Company took Calcutta by the storm in the early eighties Calcutta graduates and undergraduates gave abundant demonstration of their love of Shakespeare, that took aback the master actor Bandmann and his countrymen. The fever caught on and raged, though University Examinations (which in those days were held on delightful November days) were also on. Literally on the eve of the examination a candidate of the morrow, stole away from bed and stole back, after imbibing his fill of Hamlet. Next day at the examination hall fever-stricken, his exploitation of Shakespearian stage was a mad-like onrush, that under the latter-day system of marking would have landed the unfortunate candidate on untold grief. The Examiners—Sherring and Deighton—mighty names in those days, luckily took another view and spoke to the lad's Principal about the phenomenon. When the culprit was sent for by the Principal—grim and sardonic—he was all on a tremble; but the reassuring smile that spread over the austere face after explanation, established the basis of lifelong admiration, some of which is feebly reflected in this all too incomplete appreciation.

Years later when, through Lord Lytton's hospitable arrangements, last summer I had opportunities of participating abundantly in the Shakespeare festival at the Memorial Theatre in Stratford-on-Avon and also at Old "Vic," on the Surrey side of the Thames, the memory of that mad feat forty years ago and Principal Tawney's forgiving encouragement all came back to mind. I mentioned it to Lady Beerbohm Tree, round Lord Lytton's hospitable table in his London house and they much enjoyed and appreciated the episode and were filled with admiration for the great Professor,—I was then looking forward to the oft-thought-of pilgrimage to Camberley, where my stricken preceptor lay. It was, alas, not to be and the loving, pressing invitation remained over to be responded to another time. But that another time never came. Time intervened and did its fated work.

May Charles H. Tawney's soul have peace and rest and may his rational love of India and Indians, widen, broaden and deepen in his countrymen's and countrywomen's hearts for the good of India and also of England,—and mayhap of the world. Men like Mr. Tawney are often unbreakable links in nation-binding bonds and their withdrawal from their sphere of action and influence is a national disaster.

Those who knew Mr. Tawney and his work, mourn his loss as such.

DEVAPRASAD SARVADHIKARY

SOME BIRD PETS OF BENGAL

(*The* SHAMA,—*Cittocincla Macrura*)

The Shama, as a songster, is entitled to the first place in the whole feathered community of Bengal, and for the matter of that, of India. For a competitor to whom it yields in song, we have to look to regions which are, strictly speaking, outside India, to that unassuming bird which, despite its homely beauty has been rendered immortal by its vocal charms—the Nightingale. Though the Shama is overstepped by this prince of songsters by a long distance, yet the sweetness of its song is highly remarkable for its variety, depth, impetuousness and modulation, which have made it the darling of both the high and the low throughout the length and breadth of India. This bird was familiar to our ancestors in the long past. The name Shama signifies 'glossy dark'—a predominant colour of the bird. The name has another fascination for the Hindus, whose love and reverence for the goddess of that name are so well-known. The bird has yet another charm. It is very docile in captivity, though so bold and fearless in demeanour. This, added to its beauty and its wonderful capacity for imitating human voices and calls of other birds and animals, has greatly enhanced its value as a caged pet. The attention which it can thus command from its master is no less remarkable. It is commonly kept in a lovely cage of superior workmanship, always wrapped up with a piece of clean linen, and taken out every evening for an airing. Those who can afford, engage servants specially for this purpose, and it is not an unusual sight in many an Indian city to see several such cages taken out to a municipal park or open ground for the airing. A covered cage is always looked upon by the Indians as essential to keeping a bird in health and song. The belief has taken such a firm hold on the mind of the masses that no amount of reasoning can dissuade them from this practice which is obviously contrary to all hygienic rules; for, in fact, birds in open cages, enjoying air and light, do not sing the less or fare the worse in health. In spite of this drawback in caging, the caged Shama can be pronounced to be an avicultural success, for the bird grows robust and lives long in confinement, and, except for the short moulting period, it sings throughout the year. And, since the bird is often caged when young, it gets accustomed to human intrusion, and acquires a non-chalant air about it, singing away its days quite oblivious of the presence of man.

Distribution.

The Shama, in freedom, is not a familiar sight to us. It is a denizen of thick jungles and dense forests, keeping generally to the underwood. It loves to frequent thickets in glades and valleys located in the midst of hills or mountains. It is, therefore, absent in the districts devoid of these natural features. In Bengal, which is one of the most thickly populated provinces, this bird confines itself to those jungly districts where human habitation is scarce. For this reason it rarely makes the deltaic portion of Bengal its place of abode, but is often a dweller of the western skirts of the districts of Midnapore and Birbhum. Eastwards from the Padma in the verdant hills of Cachar, Assam and Tipperah, it is very numerous. In other parts of India its most important ranges are the Terai districts of the Sub-Himalayan regions from Nepal to Dibrugarh in Assam. It is also represented in the well-wooded hills and forests of Central India, Orissa, Chotanagpur and the Rajmahal Hills. In Southern India, it is a permanent resident of the hill-ranges of the West as far north as Khandalla in the Sahyadri. Its range extends beyond the Palk Straits into Ceylon, where it is very abundant. In the eastern parts of the Deccan, it is seen in Malabar. It is absolutely a stranger in the provinces west of the Ganges, and in Rajputana. It is widely and abundantly found all over Burma.

Field Notes.

It is invariably a resident bird in the localities to which its range is confined, but in the hill-tracts of Cachar, it has been observed to be a winter visitant. It seldom ascends the hills to any great height, nor is it ever seen in cultivated tracts, however well-wooded. The hills and forests, the jungles around streams and woods in valleys and dales which the bird frequents are hardly considered by it as its safest retreats; and so, by way of further precaution, this wary bird betakes itself to the most impervious thickets, under-wood and clumpy bushes where it is able to escape the most searching observations. Almost everywhere within its range, the bird shows a preference for particular spots, over which it holds sway and even seems to stick to this favoured haunt in spite of devastations by occasional fires which break out in the forest.

The Shama thus chooses for its habitation places where Nature is luxuriant and arrayed in its varied glories. In the mornings and evenings, from the midst of a bush or a bamboo-scrub—for which it seems to have a partiality—it mingles its impetuous melody with the music of rustling leaves and murmuring rills. And, while rapt in its own song, the least sound will send it scurrying through the air—so shy and easily alarmed it is! But its flight is never long; and re-alighting at a short distance, it vanishes into leafy cover, whence it renews its song with as much vigour. When the usual notes are thus suddenly interrupted, the bird gives out a sort of monosyllabic sound which, Legge says, resembles *churr churr*. But to me it hears more like *t'chat t'chat*. This peculiar sound is accompanied by a jerking up of the tail.

It never soars high into the air, nor is it ever seen perched on the topmost branches of trees; but it makes it a point to keep as near the ground as possible, generally selecting low branches for perching. From such a position, it is always on the look-out for any insect which may stray into view. As soon as it notices its prey, it comes down to pick it up; and if, in the act of swallowing the worm, it happens to spot another, it hops up to bag this one also. It is chiefly insectivorous, its menu consisting of grasshoppers, small beetles, ants, flies and their congeners.

Solitary in its habits, it aggressively drives away any member of its own community, and on the approach of one, it will at once attack the latter fighting fiercely, till one gives ground. The unsociability of this bird falsifies the proverb that "Birds of a feather flock together." This peevish temper makes it shun even the proximity of its unobtrusive mate, who wisely keeps aloof and, from a distance, takes silent pride in the vocal attainments of her enchanter. If, by inadvertence, she comes too near her lord, he forgets all codes of chivalry and does not even hesitate to give her a sound chastisement.

Nests and Eggs

The only season, when the Shama does not dislike the company of its mate, is when instinct obtains mastery over its temper in the mating period. It mates during April and June, and the female rears up the brood. Hollows in trees or stumps from two to twenty feet from the ground are selected by it for nesting, and sometimes she takes advantage of holes made by other birds. She stuffs up the hollow with dry leaves about three inches thick, and makes upon this bed of leaves, a loose nest of twigs and grass. The eggs laid by her are usually four in number, rather small in size, and ovate in shape. The ground colour is dull greenish, very often a pale sea-green. The whole is densely freckled with rich brown, thickly mingled with dull purple.

Cage-life.

If there is any bird which repays the care bestowed on it, it is the Shama. Its rich coloration, bold and vivacious movements, powerful and melodious voice and unlimited power of mimicry—all combine to make it the most desirable subject for the cage or the aviary. Though in India this bird has received the attention of bird-lovers from time immemorial, no one seems to have studied it from an avicultural view-point. We know little of its wild life; we in India knew as little about its life in the cage till Europeans took up the study.

The Shama is one of those birds which in a free state shun all intimacy with man. But once caged, it seems to forget all antipathy towards him and becomes the most lovable pet. It never pines for its loss of liberty; and its easy and cheerful life indicates that it fully appreciates the love and care of its protector. If hearty cheerfulness conduces to long life, it is no wonder that the Shama stands a life of bondage so well and so long.

When accommodating the Shama, it should be remembered that it is very restless. It is always frisking about with its tail working up and down. It should have sufficient space inside the cage; otherwise its continual tail-play will injure that beautiful appendage of its graceful person. While introducing it into the aviary, it should be kept in mind that this bird, however tame it may be, has a wonderful combative temperament. The presence of another Shama serves as a red rag to a bull. It never condescends to accept others of its kind as chums and seems to think that the latter are there to be its uncomplaining fags. When in a warlike mood, its healthy optimism would even lead it to give battle to its keeper, if the latter were to enter the aviary without the conciliatory dish of mealworms. It carries its bureaucratic aloofness to such an extent that it would at first refuse to chum up with a female Shama, if introduced into its dwelling. The male does not seem to be at all anxious for a feminine companion. You can never thrust a female Shama near a male without a lengthy introduction. The female, knowing well the tyrannical temper of the male, will at first shrink in fear. Both should at first be kept in different cages inside the same aviary. Occasionally they may be let loose. At first there is sure to be trouble, but the male will begin to tolerate the female gradually, and may even mate in the long run.

Indian experience has seldom recorded any instance of the Shama breeding in captivity. A couple of years back I noticed a pair trying to build a nest in the hollow of a stump inside an aviary of the Calcutta Zoological Gardens, but nothing came of it. A pair of Shamas in the aviary of Mr. G. C. Mandal of Calcutta built a nest and hatched their young which, however, did not survive long. But we find mention of several instances of the Shama having bred in captivity in England. In this direction, the observations of Mr. Reginald Phillips are of great value. The female Shama seems to take the initiative in building a nest. Not until the male is thoroughly satisfied as to her earnestness does he respond to her silent appeal. In selecting materials for the nest the female shows much discrimination. In one instance, it carried dead leaves of ivy and Euoymous, while it studiedly rejected those of rhododendrons. It chose straw and the finest hay for the inner lining of the nest, but never looked at moss and hair. The period of incubation seems to last for about eleven or twelve days. It is only when the nestlings come out that the keeper will feel the greatest difficulty as to food. While in ordinary times the Shama would take to all sorts of artificial food, it refuses to eat anything but insects at this time. The keeper will thus be hard put to in maintaining a sufficient supply of live grubs both for the chicks and the parents. A regular supply of mealworms and cockroaches should be kept up at this time. The mealworms may be given whole and need not be cut up into pieces. The capacious throat of the young bird can receive whole cockroaches without the least danger of suffocation. In India we hand-rear captive nestlings with *Satoo* made into soft paste with water, and a few grasshoppers. It is interesting to note how the parent bird tries to keep the fact of its nest a secret. In your presence it will never go straight to its nest, but will make a show of stopping at different places before it finally enters it. The Shama is very careful about sanitation, and the male may often be seen carrying the excreta and dropping them at places farthest from the nest. When the young are considered able to fly, the mother-bird gives them a preliminary course of training by supporting them from beneath, after shoving them off a perch. As soon as the aviary-bred nestlings attain their adult plumage, the question naturally arises as to the propriety of in-breeding and even trying any experiment of crossbreeding a Shama with an English bird.

In this country it thrives well on *Satoo* prepared with boiled ghee, grasshoppers and a few maggots. In England it is given cockroaches, mealworms, gentles, ant's eggs and the yolk of hard-boiled eggs. Pieces of raw meat are also given, but this should be sparingly used for too much of this food may bring on diarrhœa. Ordinarily the Shama does not require any great attention. But at the time of moulting, careful watching and feeding are necessary. For then it is susceptible to a kind of warty growth on the legs and feet and just above the eyes. It should be carefully guarded against cold and draughts during the period.

Its song loses none of its charm in confinement. Besides its usual song, it has a habit of uttering a few set phrases over and over again, pausing after each utterance. These repetitions are rendered in the vernacular as "Gopeeji rojee bhejo" (Send us our daily bread, O Gopiji). These sounds are repeated a great number of times and then suddenly changed. Its imitative faculty knows no bounds. It can mock any bird to perfection and can faithfully render the voices of cocks, crows and kites. Even the female Shama is not altogether devoid of song. My own specimen sings as beautifully as the male and repeats the above-mentioned set phrases. It is no wonder, therefore, that in some countries the bird is called "Hundred-Tongued."

In India the Shama is housed in the cage, which is generally kept covered. But the aviary with plenty of space, air and light is the best place for keeping it. It may be rough in its dealings with its own kind, but it seldom gives trouble to others of the avian community. If you care for its cheerfulness you should always provide for the luxury of a bath, for this bird is inordinately fond of a dip in water. It is curious that if there be two male Shamas in the same aviary, none would even bathe. Because a bath means wet plumage, which means damaged armour to a bird, and a wet bird succumbs easily if attacked. In one case it cost a Shama its life for unwisely bathing in an aviary where it had a pugnacious companion.

The Shama is easily available for purchase all over the country. Birds caught young in the Terai are brought down in numbers to Gorakhpur and Monghyr to be hand-reared. These birds take to cage-life easily; but those from Midnapore, generally caught while adult, very often pine away in captivity.

Coloration.

The Shama's outward appearance is beautiful and striking if not gaudy. The head, back and throat with the neck and breast are black with a splendid gloss throughout.[1] All the underparts are a rich bright chestnut except the thighs which are white. The rump and the upper tail-coverts are white; and during excitement when the bird puffs up its whole plumage, the downs on these two parts show conspicuously in two fluffy patches of snowy whiteness. The wings are dark brown and the primaries edged with lighter brown. The tail of the Shama is a very important part of its anatomy inasmuch as the length of the tail gives to this extremely graceful bird much of its grace. The central tail-feathers are the longest, while the lateral are graduated, which means that they gradually become shorter on both sides. The two pairs of central tail-feathers are completely black, while the others are white at the end, the white increasing gradually on the outer feathers.

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[1] I have, however, noticed Shamas with chestnut streaks just above both the eyes—a thin straight line elongated bothways towards the nape and the mandible but not reaching these parts.

The basal end is always black. The line of demarcation between the black and the white is drawn in an irregularly slanting direction.

This pleasing coloration is denied to the less assuming female Shama, in which black is replaced by slaty brown and chestnut by rufous. The female birds of Tenasserim are often darker than their Indian cousins.

The bill of the Shama is slender, compressed and black; its legs are of pale flesh-colour, its claws light horn and eyes deepest brown.

The baby Shama is dark brown in its upper parts with fulvous spots on the feathers and wing-coverts; underneath, it is pale rufous with brown mottlings on the throat and breast. The colour, however, varies a good deal in young birds.

The usual length of the bird is eleven inches, the female being smaller by an inch in the tail.

SATYA CHURN LAW

PHEROZE SHAH MEHTA

PHEROZE SHAH MEHTA AND HIS TIMES

I

The demand for political biographies has kept pace with the growth of political literature in India. But in all our copious literature, we have hardly a striking biography in the sense in which men of letters in England and France have honoured their men of affairs. May be we have no commanding literary talent to do justice to our men of action: the cynics may retort that there are no commanding statesmen fit for such honours. The truth is, few Indians have had anything like the opportunities of European statesmen to direct the energies of their nation or initiate great movements from their position of trust and responsibility. Perhaps within the limits of their opportunities, the pioneers of political reform in India have played their part with distinction. When we have developed that beautiful blending of culture and politics, when we have created a truly national literature, we shall be able to perceive in their proper perspective the place and work of the Eminent Victorians in India. What odd corners of recent history will be illuminated by an intimate study of the life and career of men like Dàdabhai Naoroji and Justice Ranade! Could the history of British India in the last four decades be ever complete without a record of the resounding words of the early congress-men who set the standard of public life in India?

We propose in the following pages to recall the more salient features of a crowded and eventful career which for forty years continued to exercise a profound influence on the Indian polity and touched the life of the nation at many points. Sir Pheroze Shah's life[1] was coterminous with the fortunes of two generations of his countrymen and it is but fitting that the third generation should ponder over the aspirations and achievements of the pioneers of political reform in India and profit by their experience. Mr. Gokhale used to say that his generation had to be content with serving the country by its failures, and he generously left to posterity to reap the fruits of its labours. If this is true of all pioneering enterprises, Mr. Mody has done an invaluable service in tracing the physiognomy of a most vigorous and fruitful period of our history, and recalling to us how the giants of the Victorian age worked in faith and patience and paved the way for the progressive realization of responsible government in India.

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[1] *Sir Pherozeshah Mehta: A Political Biography.* By H. P. Mody, 2 vols., pp. 698. The 'Times' Press, Bombay, 1921.

The Victorians in England in spite of sneering criticisms of their self-complacency, still dominate the world by a certain breadth of humanity and adventurous idealism. A generation nurtured on the writings of Tennyson, Ruskin, Mill, Darwin, Spencer, Huxley and Matthew Arnold and a host of political and social philosophers was inspired by a sure social purpose and it is no wonder that they had their votaries in distant India where the genius of English literature created a profound revolution, silent albeit far-reaching, in the thoughts and ideals of the immemorial East. Nowhere has the contact between two great cultures been productive of more beneficent results. And among the first band of English educated youths in India we have to seek for the genesis of the great political unrest which is making such a headway in the turbid waters of Indian life.

II

Pheroze Shah was one of earliest and most finished products of the Bombay University, then under the inspiration of the great educationist of Western India, Sir Alexander Grant. After the usual school course Pheroze joined the Elphinstone College where he was distinguished as "a keen and diligent student, particularly fond of History and English literature" and "endowed with a mind of unusual capacity." His personality we are told was striking. "Though of little more than medium height, his strong and handsome features and broad shoulders lent considerable dignity and impressiveness to his general appearance." These he retained to the last. A brilliant scholar, he soon became the favourite of Sir Alexander who was so impressed with one of his essays that he ordered it to be preserved in the archives of the College. He was no less marked in the cricket field. "He seems to have played in a characteristic fashion, never knowing when he was defeated"—a trait which continued long after he left the playing ground for the more complex battle of life in the Senate, Corporation, Congress or Council. In 1864 Pheroze Shah passed his B.A., and was awarded the *Dakshina Fellowship.* He had also the honour of an interview with Sir Bartle Frere at the Government House. A few months later, at the instance of Sir Alexander, he obtained the benefits of a Fund instituted by a Parsi philanthropist, "to enable five natives of India to proceed to England for the purpose of qualifying themselves for practice at the Bar in India." As a special grace he was permitted to appear for M.A., within six months after passing the B.A., and Pheroze justified Sir Alexander's confidence and became one of the first M.A.'s of the Bombay University. Pheroze Shah sailed for England with Sir Alexander in December, 1864.

It is interesting that the Committee's choice for Bengal happily fell on W. C. Bonnerji—a singularly intelligent and far-sighted leader who was to preside over the deliberations of the first Congress at Bombay. The friendship formed on board the steamship continued to the end of two lives and the two became the leaders of the bar and of public life in their respective provinces, often working in harmony in the common interest of the country. Accompanying them was another Elphinstonian, Mr. (now Sir) Hormusji Wadya, one of the leading lights of the Bombay Liberals. On the eve of their departure their fellow students at the college presented them with a farewell address—an unpretentious document which bore the names of many who in after years attained to eminence in various walks of life. Among the signatories it is interesting to find such names as Mahadev Govind Ranade, Bal Mangesh Wagle, Rahimtulla Mohamed Sayani, Goculdas Kahandas Parakh—names dear to all familiar with the history of the Congress, and indeed of India's struggle for Self-Government.

It is unnecessary to dilate on Pheroze Shah's habits of life and study in England which were as marked and brilliant as could be expected. " When you are in Rome do as the Romans do " is a maxim that young Pheroze carried probably to excess. He was certainly the pink of fashion in the fashionable society of London and Paris and the trace of lavender civilization and the passion for sartorial extravagance persisted to the end. But everything was subordinated to that one end towards which his whole life was converging. With him as with Gokhale love of country so filled the heart that everything else was of little moment and he laid all his gifts and accomplishments at the altar of India. For already in London, the nerve centre of the Empire, the great Dadabhai Naoroji was embarking on a remarkable political career. The simple austerity of his life and his touching devotion to the land of his birth was a source of inspiration to all who went to England. His home became the centre of the young hopefuls from India and around the illustrious patriarch gathered all the talent and energy of awakening India. They were gifted men destined to leave the impress of their personality on the country.[1]

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[1] " Jamsetjee Tata, after many vicissitudes of fortune, lived to become a great captain of industry, and the pioneer of India's industrial awakening. Mun Mohun Ghosh distinguished himself as a lawyer and politician during the comparatively short span of life that was allotted to him. Budrudin Tayabji enjoyed an immense practice at the Bar,

Though Pheroze Shah was thrown largely in the society of his own countrymen he was by no means confined to a narrow circle. He was keenly interested in the broad currents of British politics and he came to know some of the distinguished figures in English public life, like Lord Shaftsbury and the Duke of Argyle. Cobden and Bright and Gladstone were breathing a new life into the political controversies of the day and he drank at the fountains of pure liberalism. Nor was he unfamiliar with the teachings of Carlyle and Ruskin and Mill which shook the ardent minds of the nineteenth century with the passion for freedom and truth. And then the message of Mazzini and Victor Hugo—who could miss the inspirations of these powerful minds of the Victorian age? We can trace the influence of this liberal and cosmopolitan outlook in his paper on "The Educational System in the Presidency of Bombay" read before the East India Association prior to his departure to India. The spirit of these times is so completely at variance with that of ours that we may not endorse Pheroze Shah's simple division of "lower" and "higher" civilizations; but there is no doubt that his plea for rational and critical culture in preference to unquestioning submission to old world dogmas is now the corner stone of modern educational methods.

III

Pheroze Shah sailed for India in September, 1868, after four happy years of crowded experiences—years in which he laid the foundations of a long and distinguished public career, a career equalled by few [1] and surpassed by none, with the possible exception of Dadabhai. It was on his way home

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rose to the Bench, and carried with him there the qualities which had given him an honoured place among the leaders of the people. W. C. Bonnerji became a lawyer and a leader of unquestionable eminence, and his massive personality lent distinction to the public life of Bengal."

[1] Sir Surendranath Banerjee and Sir Dinshaw Wacha are among the few other publicists with an equally long and meritorious record.

that he made the acquaintance of that great and good man, Sir (then Mr.) William Wedderburn who then held a high office in India and who was later to be so intimately associated with Pheroze Shah and other Congressmen in the service of the country of his adoption.

From the day he returned to Bombay he became unconsciously, yet inextricably, linked up with the fortunes of the city and indeed with the civic life of the nation at large. For forty years there was hardly a movement for the advancement of his countrymen with which he was not prominently connected. Pheroze Shah was a brilliant lawyer and his practice was at once growing and extensive. He had steadily established his reputation in the moffusil courts and had won many triumphs. In sheer forensic skill and debating power he had hardly a compeer. And yet it would argue a lack of the sense of proportion if we stop to consider his legal triumphs. It is enough to say that he won the unstinted admiration of such legal luminaries of the time as Telang and Ranade. His victories at the Bar have almost been overshadowed by the blaze of his achievements in public life. In the latter then we have to seek for his true laurels. To the end, he retained the independence of his vocation and though he was more than once threatened with judicial honours he stuck to the Bar with characteristic pertinacity, while one by one his distinguished colleagues were snapped off "to fresh fields and pastures new:"

> "Budrudin Tyabji got lost in the ever increasing volume of briefs; H. A. Wadya winged his way to Rajkot to earn wealth and fame; Limji Banaji accepted a subordinate position in the High Court; C. M. Cursetjee got absorbed in the moffussil judiciary; 'Dady' Cama returned to London to take charge of his father's business; Bal Mangesh Wagle went to Baroda as Chief Judge in the wake of Dadabhai Naoroji appointed prime minister of the Gaekwad."

Later we find the incomparable Telang and Ranade slip to the Bench of which they became such worthy ornaments. But Mehta was inexorable.

IV

These were also years of political apprenticeship. Soon after his return from England was started the Bombay Branch of the East India Association of which he and Wagle were appointed Secretaries. The first political activity of this new institution was to organise a suitable testimonial to Dadabhai Naoroji in recognition of the eminent services he was rendering. To this pleasant task Pheroze Shah applied himself with reverent zeal. A handsome amount was collected and presented to the Grand Old Man in July 1869 "and it was entirely characteristic of the man that, poor as he was, he devoted the whole of that sum later on to the furtherance of the causes which were so dear to his heart."

Pheroze Shah's discourses before the Bombay Branch of the East India Association deserve a passing notice. It was here that he made those exciting speeches of his days of political apprenticeship. His paper on the Grant-in-aid System (December, 1869) and his defence on the Competitive System for the Civil Service (April, 1870) were subjects of acute controversy in which he rubbed shoulders with Wedderburn and Ranade. Pheroze Shah boldly seized the fundamentals in either case and it is refreshing to follow his arguments in the light of subsequent history. There is neither imagination nor statesmanship in the government's policy in Education or the Public Services, and we find the vehement advocate of higher education and of the superiority of Competition over Selection disillusioned in thirty-five years.

It is not, however, in studied dissertations, thoughtful and scholarly as they were, that we look to the real power of Pheroze Shah among the public men. It was in his impromptu speeches, inspired by the fire of the occasion that we find him at his best. His commanding personality, the courage and independence of his mind, the vigour and vivacity of his spoken word that took the audience by storm. One such occasion presented itself when the Volunteer Movement was started in 1877. It was the time of the Russian scare and the Government was anxious to strengthen the military resources of the country by the formation of a Volunteer Corps from among the European section of the population. A public meeting in support of the movement was held in the Town Hall on 30th June, 1877, over which the Governor, Sir Richard Temple presided. After the resolution for the formation of a European Volunteer Corps was moved and seconded, the President asked formally whether any gentleman desired to address the meeting. What was the surprise of the Governor and his colleagues around him when up rose Pheroze Shah and made a blunt speech protesting against the whole procedure! He argued :—

> "If the European inhabitants of this town had convinced themselves of the necessity and desirability of forming a volunteer corps among themselves, it was certainly open to them to have called a meeting of their own people, and to have taken such steps as they might think fit to carry out their project. But I must admit that it seems to me extraordinary conduct on the part of the promoters of this meeting to try to do this in the presence of all the inhabitants of the town. It seems to me, and though I say it with regret and diffidence I think I should say it boldly, that the native inhabitants of this town, when a proposition of this sort is laid before a public meeting of the inhabitants, are called to attend simply, if I may be allowed to say so, to assist at passing a vote of want of confidence in themselves. A proposition of this kind to a public meeting of the inhabitants of Bombay is simply asking the native classes to assist at their own execution."

Telang followed with an equally brilliant and convincing blow at this blatant exhibition of racial discrimination.

In fact, the reactionary administration of Lord Lytton provided ample scope for widespread discontent and roused the forces of popular indignation to white heat. The passing of that measure—the Vernacular Press Act—in the teeth of unmistakable opposition has continued for forty years to add to the bitterness and acerbity of political agitation in India. Initiated by a telegram dated the 19th March, 1878, from the Viceroy to the Marquis of Salisbury, the Secretary of State for India, it was passed the very next day after the farce of a Council meeting. It seems incredible that any Government should have rushed any Bill in such haste! Pheroze Shah and his friends kept up a sustained agitation and it is a remarkable illustration of his judgment that when in 1910 Gokhale acquiesced in the "Press Act" in face of overwhelming evidence the far-seeing leader replied: "Government had never listened to the advice of the leaders of the people on matters of policy, and when it came to forging repressive legislation they wanted the latter to share the responsibility and the odium. It was a great mistake, therefore, on the part of the Indian members of the Council to support the Press Act."[1] It is sad to think that Pheroze Shah is not alive to see that Act repealed.

To return to the days of Lord Lytton. The coercion of the press coupled with that other perpetual tyranny of Lancashire over the fiscal policy of India[2]—found in Sir Richard Temple, the vigorous and ambitious Governor of Bombay a strong supporter. Pheroze Shah inspired the public protest against any memorial to the reactionary Governor and characteristically plunged into the controversy. In fact Pheroze Shah moulded and guided public opinion in the Western Presidency and his influence and authority in Bombay were unrivalled notably in the civic life of the city to which we must now turn.

V

An ardent Bombayite, Pheroze Shah identified himself with the fortunes of the City with unsparing energy and devotion. In the seventies of the last century when the Municipality was no more than a name and Bombay herself was an unrecognizable heap of huts and houses intervened with narrow lanes, Pheroze Shah was a pioneer of municipal reform. "The proposals he put forward and which were ultimately embodied in the Act of 1872, reveal a political sagacity and breadth of outlook, which for a young man of twenty-six, may well be considered astonishing." Pheroze Shah was an indomitable fighter and beneath an exterior of impenetrable dignity and grandeur of manner there was something of the bull-dog temper, proud, domineering and passionate. Mehta was apt to be a trifle too masterly in municipal matters as in the caucus over the Battle of the Clocks and in the virtual prize-fighting for Presidentship in the year of the Royal visit. Like all truly ambitious men he was human to a fault and he could give as well as receive knocks with such evident delight in action that his enemies even called him "ferocious." The fact is he was impatient of all incompetents who were really afraid of him. We have not the space to refer to the part he played over the Crawford agitation and the successive stages through which the Corporation had undergone until it took the final shape in the Act of 1888. The reader may further be referred to the glowing and picturesque pages of the *Bombay Municipal Government* by another veteran Bombayite and life-long friend of Sir Pheroze Shah,—Sir Dinshaw Wacha. For over twenty years Pheroze Shah fought indefatigably and sometimes even "ferociously" for the fulfilment of his dreams of a model municipality; and only the other day His Royal Highness the Duke of Connaught bore his personal testimony to "the indelible mark of genius impressed by the late Sir Pheroze Shah Mehta," upon the municipal constitution of that city. Well might he be called the "Uncrowned King of Bombay." For he of all our public men was an ideal citizen even as the late Chamberlain with whom he had many traits in common, was an ideal citizen of Manchester. Pheroze Shah had ample reward for his labours for his grateful fellow citizens returned him again and again to preside over the premier corporation in India; and he had the honour of welcoming the Prince and Princess of Wales in 1905 and again in 1911 when as King and Queen Their Majesties came to India to hold the Imperial Durbar at Delhi.

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[1] Mr. Mody's Life of Mehta.

[2] For once a strong and honest Secretary of State like Mr. Montagu refused to interfere with the fiscal fortunes of India to feed the avarice of British merchants

VI

On the enlargement of the Councils in 1892, the first non-official member in all India to be elected to the Reformed Legislature was Pheroze Shah Mehta. At a meeting of the Corporation held on the 4th. May, 1893, on the motion of Sir Jamestjee Jeejeebhai, seconded and supported by Yajnik and Wacha, Mehta was unanimously recommended. When the first meeting of the Council met at Poona on the 27th July, 1893, there were among his colleagues his old friends Ranade, Naoroji N. Wadia and Chimanlal Setalvad. "The right of interpellation and discussion of the Budget conceded for the first time was exercised by them with a freedom and knowledge, which must have silenced those scoffers who held the representative principle in contempt."

But it was in the Supreme Council that he evidenced those qualities of leadership that were at once the dread and confusion of his enemies. He introduced in fact a new spirit into the Council, enlivening the debates with a wealth of argument and dialectical skill that were the envy of his official colleagues. On the numerous questions that came up before that body "he spoke with an ability, fearlessness and mastery of argument which delighted his many admirers all over the country" but officialdom was furious at the change of tone and temper in the opposition which he engineered.

Pheroze Shah rubbed shoulders with such distinguished civilians as Sir Evelyn Baring (afterwards Lord Cromer), Sir William Lee Warner and Sir Antony Macdonnell; and he took a leading part in all the debates and decisions of the Government. But it was left to Sir James Westland to speak the mind of horrified officialdom at the irreverent and almost cynical exposure of its narrowness by a vigilant and invincible critic. His petulant outburst may still be recalled with amusement. It was a novel experience for official hierarchy. It winced under the touch of sacrilegious hands and mightily did Sir James quail at the new spirit in the Council. Little did he know that it was but an unconscious tribute to the commanding talent, and undoubted authority of Sir Pheroze Shah—a trait so nobly followed by his successors in Council like Gokhale and Sir Rash Behary in the years to come. It is impossible in this brief review to refer to all the contentious debates in which he took part: but whatever the actual achievements of the non-officials in Council may be there is no doubt that Pheroze made it a power to be reckoned with. Who does not remember his sensational exit from the Bombay Council followed by all his non-official colleagues? Mehta carried his right of revolt into the very precincts of the Council Chamber to the dismay of the officials.

VII

We must now pass on to an yet more fruitful period of Pheroze Shah's public life. We have said that Mehta had played a striking part in organising public opinion in Western India for over a decade. As yet intermittent and spasmodic, that opinion was growing in volume and intensity as a blundering bureaucracy continued to feed it with ever-increasing causes of complaint. We have seen how Lord Lytton fanned the flame of public indignation by provocative measures. The situation quieted down when Lord Ripon came out to India as Viceroy on the return of a Liberal majority under Mr. Gladstone. Faith in British justice seemed for a time to have been restored, when it was found that even the best intentions of Liberal statesmanship were unavailing in the face of the clamour of the Services and of the Anglo-Indian community over the ill-fated Ilbert Bill controversy. Lord Ripon's sympathy with the Indian standpoint provoked the bitterest animosity of his countrymen who threatened to non-co-operate with the Government if they should persist in their course of belated justice. The Viceroy was treated with open contempt and those who are familiar with the outcry raised by the European Association during Mr. Montagu's last visit to India can, with an effort of imagination, picture something of scenes enacted by Anglo-India in 1883. But the lessons of that agitation were not lost upon the Indian leaders. They realised, more than ever, that success lay in vigorous and systematic agitation.

Thus on the advice of A. O. Hume the Indian National Congress assembled at Bombay for the first time in December 1885. Seventy-two intellectuals of all denominations met under the presidentship of W. C. Bonnerji—social and political reformers from Bengal, Madras and the Deccan.

Among the first group of Congressmen were the pioneers of political agitation in India—Dadabhai, Ranade, Telang, G. Subramania Iyer—all inspired by the noble example of Britain's constitutional struggle for freedom. The story of the beginnings of this great institution must be read in the eloquent pages of Babu Ambika Charan Mazumdar's monograph on *Indian Nation l Evolution*—a book which traces the progress and development of a great organisation designed to focus public opinion, to facilitate the governance of India on democratic lines. Pheroze Shah was among the batch of first Congressmen and we find his commanding authority in its councils. As the outstanding figure in the public life of Western India he was accorded the privilege of welcoming the delegates to the Bombay Congress under the presidentship of Sir William Wedderburn. Soon after what was known as the Bradlaugh session, a deputation consisting of Messrs. George Yule, Mun Mohan Ghosh, Sharfuddin, J. E. Howard, Pheroze Shah, Surendranath Banerji, R. N. Mudholkar, W. C. Bonnerji, Eardly Norton and Hume visited England to press upon the Parliament and the British public the urgency of political reforms. Mehta presided over the Calcutta Congress next year and henceforth his authority was unrivalled in the Committee, and year after year in successive sessions of the Congress he was the power behind the throne. Meanwhile the regime of that masterful Viceroy, Lord Curzon, who cut Bengal in twain and explained away the Royal Pledges as scraps of paper threw the country into a paroxysm of rage and Pheroze Shah's part in organising the opposition was second only to that of the veteran leader of Bengal—Sir Surendranath Banerji. In 1904 he was again appointed Chairman of the Reception Committee to welcome the Bombay Congress over which presided the late Sir Henry Cotton. Next year on the crest of a great wave of Liberalism John Morley became Secretary of State for India; and Mehta and Gokhale took the initiative to press for the reforms for which the Congress had been agitating for years. But the Partition of Bengal and the repression that followed had undone all that sober statesmanship could have done. A band of young men under the lead of Tilak, Arobindo Ghosh and Bepin Chandra Pal broke in revolt against the traditions of the Congress and challenged the merits of constitutional agitation. A reaction set in and a spirit of despair and sullen resentment swayed a body of Congressmen who openly proclaimed that they had lost all faith in the pretensions of British justice. The Morley-Minto reforms made the cleavage distinct and the more fiery spirits of the Congress had already formed an extreme wing.

Only the presence of Dadabhai Naoroji saved the Calcutta session of 1906 from what might have been a wreck. A rupture was inevitable. But Moderates and Extremists alike determined to save the Congress and a temporary truce was made when the next Congress met at Surat (having changed its venue from Nagpur the stronghold of the extreme party). The story of the Surat split and the scenes of the session are faithfully recorded in Mr. Mody's book. An impartial witness, Mr. H. W. Nevinson, an English journalist who was present at the scene of the fiasco, immortalised the incident in picturesque words (which Mr. Mody quotes) in the columns of the *Manchester Guardian*. Thenceforth though Gokhale and other Moderate leaders fought shy of splitting, Pheroze Shah with his sure and unerring judgment in these matters distinctly urged a separate organisation which resulted in the framing of the New Constitution at the Allahabad Convention. A fictitious unity was thereafter maintained while the extreme wing continued to increase in numbers and in intensity. The presence of Mehta in the subsequent deliberations had a sobering influence. At the outbreak of the War the splendid outburst of loyalty to England kept up the unity of the Congress, and Mehta again lifted up his voice in defence of the Commonwealth. On November 5th, 1915, Mehta passed away. Meanwhile the Montagu reforms and the tragic story of Jullianwallah threw the country again into another and more gigantic agitation and made the cleavage between the Moderates and Extremists more pronounced and as yet irrevocable.

VIII

Any excursions into the realms of what might have been if Mehta were alive to-day will serve nothing but provoke a profitless controversy. It will not do to make of a National leader a party whip. But of this we may be sure that he who stood by the Morley Scheme would not disdain to stand by Montagu's. In matters of principle his political *flair* was always sound. There is no doubt he would have voiced the indignation of the country over the Punjab tragedy and insisted on adequate reparations but it is no less certain that with his political sagacity he would not throw away an opportunity for his countrymen for which he laboured all his life. It is true that he once walked out of the Council followed by his non-official colleagues when the Government carried their point in the teeth of opposition. In this he showed the stamp of his character and conviction and his judgment on matters of policy was irreproachable as subsequent events have shown.

Mr. Mody writes with discriminative appreciation of his leader but he is no hero-worshipper. He has evidently taken John Morley for his model and he maintains throughout an austerity of tone and a breadth of outlook which does credit to him. As he modestly says in his Preface it is difficult to make a complete failure with a good subject. We may add that though Mr. Mody disdains to give personal anecdotes he has given a just estimate in a full-length portrait of his hero. Only on two occasions has he given anything like a good story revealing Mehta in his less austere moods: Once when he made a joke with a Mr. Bennett, the taciturn and recalcitrant member of the Bar, and the other in reply to a member of the Subject Committee who complained of his overbearing personality that he could not help it. But we cannot lay down this fascinating and luminous biography without a reference to His Highness the Aga Khan's judicious estimate. His Highness in the course of a thoughtful and brilliant foreword truly complains that the Government thoroughly misunderstood Mehta, and the reforms he advocated came thirty years too late. Too late, too late, is always the tragedy of Nations as in the lives of individuals. A stitch in time saves nine is not only a trite saying for the home but a maxim of profound political wisdom for statesmen. Could England have forgotten the lesson of the United States of America ? The recent 'Life of Kitchener' proves again that his generosity more than his valour saved the Union of South Africa. Look at Ireland [1] again. Parnell and Grattan and Redmond never dreamt of the republicanism of De Valera and yet they died in disappointment and England has reaped the whirlwind of Sinn Feinism and endless reprisals which pass for government in that ill-fated island. Of what avail is history if her lessons taught in blood and iron are unheeded ? Should we pass again through the same fiery ordeal to learn the same lesson over again ?

B. NATESAN

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[1] The Irish Agreement has since been signed, but peace seems as remote as ever.

A PLEA FOR SOCIAL SERVICE[1]

I undertook a second tour round some social service centres in Deccan, Mysore, Madras with the intention of collecting information of the different methods by which social service was being conducted in those parts of the country. I did so, to benefit the infant organization started in Calcutta under the name of "Women's Society of Social Workers"—with the knowledge gained from experiences and experiments of these other sister institutions.

When the idea first dawned upon me of introducing or rather inducing social service into the tenor of our women's existence—I did not foresee the array of formidable obstacles that would have to be spanned over, before any hopes of success could be expected, to be anything like being even encouraging! One is very often apt to be victimized in being made to forget that all is not gold that glitters in the first flush of an optimistic enterprise. However, one thing is good—that in spite of demolished enthusiasm, the embers of optimism do not die away completely, if it be born of wholesome purpose; it has more staying power and may revive, than the throttling action of pessimistic sulkiness, that just grips one with its tongs of failure and prevents any effort whatsoever of scrambling up to the lowest rung of success. I believe I just escaped being irrevocably victimized by either of these two extreme evils; for, if on the one hand, I did not perceive all the actual stiles in the way, I certainly did conjure up a number of them that I would have to swing over, as also on the other hand, set my jaws determinedly to get across without arguing hopelessly or hesitating. Its result is—I am

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[[1] As the Secretary of the Women's Society of Social Workers the writer of this article visited different parts of India with a view to obtain a first-hand knowledge of the work being carried on by several social organisations.—Ed. C. R.]

still trying to establish the *raison d'être* of the Women's Society of Social Workers.

The scheme of the Society is one that eventually works out at forming an alliance between the sisters of India and that of the wide, wide world,—the bond of the consociation being, security of peace and happiness and insurance of an universal fellowship for the purpose of cultivating and developing the virtual qualities of one another.

Often and over again have I been told that I begin unravelling the idea from the wrong end and am prone to frighten away modest, otherwise-would-be sympathizers! In spite of the warning, I still maintain that I prefer to be deductive than being inductive. I like to seek the way and means of arriving at the goal—as a consequent effort of a projecting thought. The destination being preconceived, the plan and route would come next to set about realizing it. In this, the first move is to rouse the sympathy of the educated men, more especially women, to thoughts of bettering the standard and guiding the downcasts to a level of general uplifting, to make the supernatant class seriously realize how the effects of their apathy towards that submerged mass is merely a reflection on the calibre of the very class who deems it *infra dig* to evince any interest in the affairs of the derelicts. This very attitude of civic irresponsibility has decided for us a wholesale subordination, withholding our prerogative to be recognized as a nation capable of fulfilling its ordinary duties, civilized enough to claim uniform status and equality side by side with other modern nationalities. A nation is labelled civilized or uncivilized according to the conception, ideal and attitude of the *intelligentia* in regard to the condition of its contemporaneous state of depravity and destitution which, in the annals of all political history, exists alongside of it. The sign of progress and culture has been discerned by the sensitiveness of the former group of individuals, in their abhorrence to the preponderating ignorance and pauperism in contrast with its own refinement. It has been found to express its aversion by forcible means of extirpating the causes of this derangement between man and its kind. As it has succeeded in its efforts to leaven this coarse invidiousness, the more successful an age of a nation—it is said—to have been and more has it been the indication of national progress and civilization. India is still treated as a minor ward, not yet having attained her discretionary years according to the verdict of the foster-parents! India is still chaperoned by a duenna—controlling the supreme question of all her *affaire de cœur*! True, she has begun to rage against this interference,—it is a hopeful sign of rallying self-respect—but what concrete proof is there to boldly put forward in justifiable condemnation of the malpractices on the part of a supercilious tutelage, conducted with an iron-hand, without needing the petulant criticism of a maturescent protegee or paying the slightest deference due to the opinion ranted in the air? Can legitimate defence be claimed to the right of self-assertion—by what earthly proof of efficiency? To extricate ourselves from this degrading position, how many men and women have given a shoulder to the wheel, to press forward the social changes necessary or made any attempts at revolving the 'stick in the mud' portion through imparting an educative force that might have vitalized, stirred and set in motion the dull heavy sunken load? We do not care to stoop to take any heed of, in the glamour of our vaingloriousness; but in doing so, we overlook the great secret and fact that this very deadweight of incompetency we carry as our auxiliary force, drags and keeps us down from such progressive aspirations as National Emancipation and political privileges.

What can we say to reprimand the irresponsibility evidenced by the menfolk, when they are found so complacently self-satisfied even as they glance most casually over the census returns without serious qualms when such appalling figures of the percentage of illiteracy meet their eyes, rebuking in the language of inarticulate despair—the lack of the very rudimentary sense of civic duty ; and, yet one hears them talking of the Reforms, their Councils, etc., in easeful tones and repose-ful manners ! In this, the twentieth century, we Indians who pride ourselves in being fit for responsible Government, and to be 'an integral part of the British Empire'— do we command resources either to bring our adversaries to terms or to stand as an entity equal to that of the British Empire—allying ourselves with equal ability in the contemporary politics and social organism of British criterion. Out of a fabulous population of over one hundred and sixty millions male-kind, only a number of the 10 per cent. can—what is known as being literate in the census sense—read and write !

Out of that despondent figure of ours, a large slice of deduction has to be made, to make up what is defined as the *intelligentia* on whom devolves the function of wielding the Reforms by carrying with success the *vox populi* of 90% illiterates—of their individual constituencies, which I dare say, they feel proud to represent ! Executing them, through the farce of such an arbitrary bureaucratized machinery as the Councils ! Men who canvass for their election do so through very refractory impulses of self-interested motives primarily and charge themselves with the cursory duty of advising the Government on questions determining the requirement of a dumb populace that knows not to defend its own interests and thus remaining passive victims to the interference of another despot in its turn. The elected overseers of the constituency repose comfortably enjoying the scale of social elevation, totally indifferent as to the way by which he can acquire knowledge of the true conditions actually prevalent and requirements of his constituency. There is no effort at creating a fellowship between the Representative and his constituency. It is simply by a process of mechanical assertion—opposed to the idea of congenial reciprocity—that this mockery, this fiasco is continued. So much for the luminaries fixed in the firmament of the Reforms Council. Now for a survey of the women's function.

We find only one per cent. literate in a total population of over fifty-three millions. With this statistics we stand self-condemned. Does it lie in the mouth of such an ignorant and unprogressed state to clamour for franchise? Are we ourselves not to blame for the tyranny we have exposed ourselves to in consequence of our own weakness and folly? We are to-day, what we have allowed ourselves to have been made—a degraded and unhonoured nation of women! We are treated contemptuously as a race because it had been possible to conquer it without resistance of mettle and found to yield every vestige of national pride to an abject cringing demeanour at the very first instance of defeat! Recent events, however, disclose the more healthy spirit of recuperation—it is now, while it is still aglow, that the impulses should be cast into a mould which will give shape to the destiny on which the structure of New India is to be raised.

It is my object to impress upon the women this conviction that in this architectural undertaking the women must execute into model and guide the progress of its fulfilment. There are parts of the construction which women alone possess the talent to successfully accomplish. Circumstances have so developed that special attention has been drawn to that very particular curve in which the relation between woman, her life and condition touch the mainspring of the nation's life. It has been the neglect of this that has put our country completely out of joint. The characteristic feature of the women of the country mirrors itself in the national image. So far as women influence the thoughts and control the moral element, she is the archetype of the nation's mind. It has been in the calumniation of this vital organism that the tendency to national degeneracy has set in. It is, however, distinctively perceptible that the decadent epoch of Indian history, in which women had figured so miserably, is on the decline. The sign of the times announces a stir within the women to rise in defence to the call of Young India. Now is the time to capture the spirit of the fast approaching social awakening. To my mind, polling-booths are not the birth-chambers of equality, fraternity and liberty. Its function is like that of the paraphernalia attached to the significance of university convocations where people seek the ribands and titles from a sense of vanity than necessity. To those anxious for public recognition, I want to ask how much they have assiduously studied the conditions or sought to befit their less capable sisters to enjoy the same privileges that they are scrimmaging for. What are their qualifications that would entitle them to be furnished with the right to vote? Do those ladies, with whom it is a fad, to be always in the hind of the European sisters pause to consider if they are sufficiently versed in subjects obligatory to the conception and attainment of *Franchise*? In the elementary principles of inevitable details concerning the controversies of human existence—in the treatises embodied in sociology, economics, legislature, affecting women especially, etc.? Women of European countries, adopting public life, take the trouble to acquaint themselves with the realities concerning life around them. They keep themselves in touch with the prosaic problems of labour and its laws, the housing, hygiene, sanitation and settlement of the working-women. They are equipped with facts, figures, datas, references, statistics, etc., in short they go through a thorough official training. They are fit to debate and claim the equal opportunities with men because they are equal to the occasion—whilst we loll in opulent indolence and lisp the ditty of the strong overseas movement conducted by strong women of character and learning. Have we up to now displayed any forethought and discrimination in our conduct of life with similar effectiveness as that of our Western Sisters, excepting in the mimicry of their fashion-plates! The half-a-dozen literary geniuses, exemplified in attestation to our promising faculties is hardly a feasible mark of all-round proficiency on which to base the claim of suffrage. Verse-making and fiction-writing may be counted as ornamental supplementary accomplishments, but modernity emphasizes the need of practicality in action and knowledge of a specialized purpose from the women of to-day out in the public field to pioneer the solution of great and sombre problems facing their intelligence. The women's suffrage in the West has been won by the sweat of their brows! Would we care to achieve it by superficial and amateurish wiles? Wish for emancipation imposes the necessity for extreme efforts, involving immense strength in the motive power, by dint of which it could raise the evils founded on the social obstruction and iniquities of palæolithic survival and strike a mental current that would carry along the inconsistencies distasteful to the *recherché* intellect of the day.

Familiarity with the actual conditions in the field of reparation need specialisation. To reconnoitre the defects and deficiencies and to take note of the probable forces that might serve to strengthen the position requires a definite plan of work that can only be taken up by those willing to receive distinct training in the different departments of the leading problems characteristic of the country and confronting us at this critical juncture. Of these, investigations into social conditions, organisation of women, child-labour, the handicaps in the way of the successful development of industries suitable to women, and the probable facilities which may be applied to overcome them may be mentioned.

Industrial co-operation, labour legislation, investigation into the problems of housing the population of the low, rural and urban areas—cures of discomfort, distress and disease prevalent in those neglected areas of human habitation, its possible methods of prevention, treatment and precautionary measures, child welfare and protection, vigilance on juvenile delinquents—there are thousands of ills requiring the panacea of well-regulated attention. It is a calling that cannot be dabbled in as a hobby; and unless and until we can take up the task with diligence in a systematic way, we cannot conscientiously take the cudgels on behalf of any responsible cause unless, of course, we do not mind being jeered at as quacks! The rivalry of our sisters in Bombay and Madras should be an incentive to us. They have given evidence of their practical dexterity and skill in managing public affairs, through their concentrated indefatigable activities, in the direction of practical social service rendered personally by women of position and intelligence, not only in the rôle of sinecures and munificent donors, but active workers.

The women of Bengal have a capital they make out of the *purdah* system for vindicating an inveterate lack of purpose. If Islamic despotism be the curse, as we say, that brought down the drop-scene on the cultural age and progress of Indian women—how can we justify ourselves any longer, when we learn that the original victims of that baneful imposition have challenged its infrangibility. The women of young Turkey, Persia and Egypt have unveiled themselves and ventured into the arena of the national enterprise. Bengali women with their laggardness in regard to higher pursuits, lie impassive in matters of serious import threatening the very existence of their country. Elaborate device to attain enfranchisement is merely a conclusive event. The immediate subject of attention should be .to stir the sediment of age-long insensibility, incrassated with ignorance and unnational dross.

The idea of the Women's Society of Social Workers is to train up this group of women, who realizing the significance of gaining franchise will ably and with competency raise the women of India, to a representative footing, on equal terms of efficient partnership with their enlightened sisters, sharing the burden of the women's problems of the world.

A solid and subtle acumen has got to be cultivated to engineer the viaduct of emancipation, especially over such chasms, gorges and ravines as the age-worn ravages that have been wrought by undiminished volumes of superstitions and traditional indivertibility. Idealism alone, unsupported by concrete masonry of facts, is as futile as building a bridge of fancies to gain the castle in the air !

Service—systematic, regulated under realistic control and supervision—may reward us with freedom from the manifold trammels ; it is our lot to bear in consequence of our own feeble-mindedness and ineptitude to shake them off.

Service is the only legitimate platform where man and woman can meet on common ground, and be recognized as not only complementary parts of an ordinary relationship, but elevated to a level of comradeship in all human concerns. To create this possibility staunch loyalty to the cause oblivious of all egoistic impulses alone vouchsafes the notion of franchise without which it would spell disaster, extended spuriously and broadcast.

Let us—women of Bengal—show our *boná fide* by a probationary period of whole-hearted service and study—so as to excel with honour a well-merited freedom.

SREE MAYA DEVI

ABOUT ALGAE

"What *are* algae?" I have often been asked when, in reply to a question what I was looking for, I said I was collecting algae. If I had been collecting near the sea shore in England or Ireland, I might not have been asked any question at all, because there many people know very well what is meant by "Sea Weeds," and sea weeds are algae. But if in the plains of Bengal you scrape off some green coating from an old wall, or gather some greenish-looking soil from a damp place, or fish about in a tank covered by a green or bluish green scum, or—oh horror!—collect the green or brownish slime from a dirty, malodorous ditch: you may soon find yourself an object of the curiosity of a wondering crowd—and you probably know from experience how quickly wondering crowds collect in India, and elsewhere—and you must not take it too much to heart, if you hear low-voiced remarks concerning a "pagla saheb" or a "pagla babu," as the case may be. But at any rate you are not suspected in Bengal of evil intentions, as it happened to me in Asia Minor; for people there did not understand how anyone could gather specimens for purely scientific purposes, and their apprehensions were not allayed, until my Osmanly companion explained to them that I was a *hakim* and collected specimens for the purpose of investigating their medicinal properties. So a botanist may have to choose between the reputation of a *hakim* or that of a madman.

But let us return to our algae and consider them under three aspects: their scientific interest, their aesthetic value, and their economic importance.

The algae constitute a large division of the plant kingdom. Including the numerous fossil diatoms, the number of species certainly exceeds twenty thousand.

Among these algae we meet many unicellular forms. Such are the algae which, during the rains, form a green coating on damp walls, or those which form just now a deep verdigris-green film on the tanks of the Calcutta Maidan and in the suburbs, or those which during the hot season gather into a thick bluish-green layer on the water of many ponds, such as those on the Baliganj Maidan, and which, when the ponds are in the process of drying up under the fierce rays of the May sun, cover the sides of the ponds with a deep blue stratum of billions of microscopic plant individuals.[1] This alga forms at present a film on many ponds in Calcutta and its suburbs, imparting to the surface of the water a uniform verdigris-green tint.

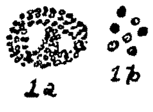

Fig. 1.

Many unicellular algae form colonies imbedded in copious slime.[2]

From these one-celled forms we pass on to species consisting of single rows of cells, such as various forms of filamentous algae common in tanks and rivers.[3]

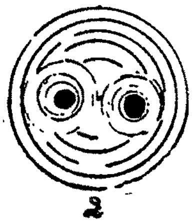

Fig. 2.

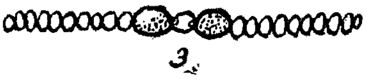

Fig. 3.

In others the filaments branch more or less copiously, like the interesting alga depicted in fig. 4, an alga which is

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Fig. 1: *Clathrocystis aeruginea. Ponds and pools. a, colony, b, single rells.*

Fig. 2: *Gloeocapsa. Road slimes.*

Fig. 3: *Anabaena indica. Ponds about Calcutta.*

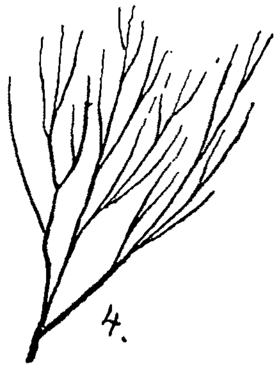

Fig. 4.

probably co-specific with one growing in Florida, but which also has been observed recently in a nursery pond in Baliganj' and elsewhere.[4]

A further development consists in the formation of flat strata, which may be built up of one or several layers. Such, for instance, is the interesting alga described by Professor Bal in the *Journal of Science* of the Calcutta University, one of the few algae which grow parasitically, lichen-like, on the leaves of a great variety of trees and shrubs, on those of the guava tree for instance.

Finally we arrive at algae which are branched in the most various ways, as is the case with the Charas and with numerous brown and red algae, most of them inhabitants of the sea. The stems and branches may be cylindrical or flat; the plants may resemble mosses or ferns or much-branched shrubs, or they may look as if possessed of stems, scales, leaves and bracts, thus resembling higher plants to a remarkable degree. Some of them attain gigantic proportions, particularly members of the natural orders Laminariaceae and Fucaceae. Such are species of Lessonia, the stem of which may reach the thickness of a man's thigh, whilst the leaves of *Alaria Fistulosa* attain a length of sixty feet and those of *Laminaria Bongardiana* are more than a yard in width.

Well known are the tangles which, drifted together in immense masses and floating by the aid of bladders, form the Sargasso Meadows of the warmer parts of the Atlantic Ocean.

Of great interest are the various modes of reproduction which are met with among the algae. We notice here the gradual transition from a purely asexual to the most

Fig. 4: Compsopogon sp., growing in some ponds in Baliganj.

pronounced sexual reproduction. The multiplication by mere cell-division has already been referred to. In other cases part of an algal filament becomes separated and gives rise to an independent individual.

In the Oscillatorias a certain number of cells often escapes from the open end of a filament as a cylindrical body with rounded ends, a so-called hormogonium, and settles down in another place to grow out into another blue-green or brown thread.[5] In other cases the protoplasmic contents of a cell will surround themselves with a firm wall of cellulose and remain for some time in a dormant condition, usually for the purpose of tiding over seasons of cold or dryness. Again in other cases the protoplasm of certain cells may divide up into a number of microscopically small globular or egg-shaped bodies provided with exceedingly thin hair-like excrescences—cilia,—which by their whirling motion propel the body, called a swarm-spore, through the water, until after some time the spore settles down and sprouts out into a new plant.[6] Then we notice the phenomenon of conjugation witnessed in the various species of spirogyra so common in our ponds, jhils, and rivers,[7] or in the beautiful desmids and diatoms.

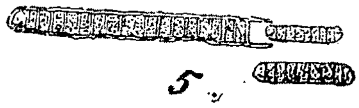
Fig. 5.

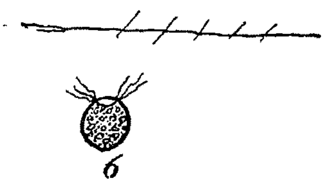
Fig. 6.

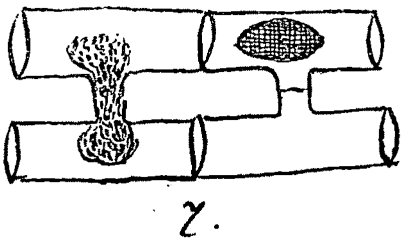
Fig. 7.

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[5] *Lyngbya arboricola. On the book of the Rain Tree.*

[6] *Swarm spore of Oedogonium.*

[7] *Spingyra uitida, part of two conjugating filaments.*

From these either purely asexual or doubtfully sexual cases of reproduction we pass to those in which sexual reproduction is clearly exhibited. Ciliated swarm-spores, either of the same or of different sizes, after swimming about vigorously, meet and fuse together, after which they germinate.[8]

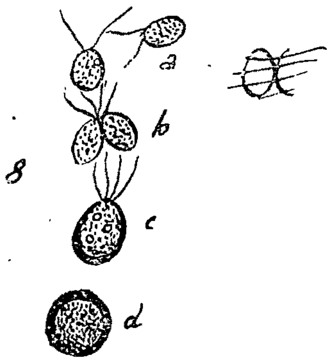

Fig. 8.

Most interesting is the sexual reproduction of the species of Œdogonium, which are found in fresh or brackish waters all over the world. In a number of these species some of the cells swell up to form the egg-cells or oogonia, whilst in other cells, often in different filaments, swarm-spores are formed which fasten themselves on to an egg-cell, surround themselves with a membrane and grow out into a minute plantlet, which opens by a small lid and discharges a swarm-spore through the fertilisation pore into the egg-cell, which then surrounds itself with a smooth or sculptured membrane and forms the oospore, which later on germinates into a new plant.[9]

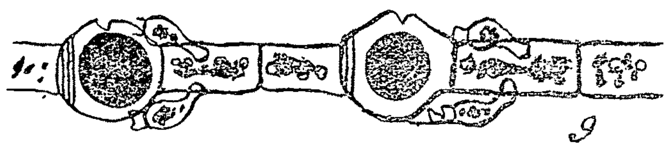

Fig. 9.

The subject of the development of sexuality will be treated in a later essay; it may only be pointed out here that it looks as if Nature had experimented with various methods of sexual reproduction during the course of the development of the large sub-kingdom of the Algae.

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[8] *Copulating swarm spores.*

[9] *Sexual state of Oedogonium.*

Whilst some of the branches of this sub-kingdom have stopped short of further progressive development, others have undoubtedly developed into more highly differentiated groups of plants, whilst others again have adopted a saprophytic or parasitic mode of life and given origin to the class of fungi.

One of the most interesting facts concerning algae is the spontaneous movement of a number of species. The Oscillatorias owe their name from their peculiar kind of motion. Under the microscope you see them often bending to and fro as if they, in quite an uncanny manner, were exploring their surroundings near their upper extremity; but you can also see them moving onwards under what with a higher magnification appears quite a respectable velocity. Such independent movement we witness especially in the one-celled Desmids, of which more than six hundred species have been described from the Lower Provinces, particularly from the Raniganj Coal-field, and the equally one-celled Diatoms. Of the latter we may refer to a particularly lively one which we frequently meet with in the mud scraped off from the surface of various Bengal filter-beds. We shall soon return to the Desmids and Diatoms in another connection.

This subject of what we may call voluntary movements leads as to the second part of our essay—to the aesthetic side of algological studies.

One of the most fascinating spectacles to watch under the microscope is the behaviour of the members of the family known to Algologists as Volvocaceae, a family which also from a purely scientific standpoint is of the highest interest. They consist of cells united into groups—algologists call these groups *coenobia.* Either all the cells, which are generally speaking ovoid or pear-shaped, or only those arranged along the surface of the colony, are provided with two hair-like whips—called cilia or flagella—by means of which the colony moves about. In one of the simplest forms—*Gonium* —sixteen flagellated cells are arranged into a plate, which can be seen to rotate round an axis at right angles to the plate, performing at the same time a rocking movement. The colonies of *Eudorina* form hollow spheres of a gelatinous substance within which are placed, at equal distances, thirty two spherical green cells, each protruding two flagella, through exceedingly fine canals. The whole colony moves forwards, at the same time rotating round its axis, so that it presents the appearance of screwing itself through the watery medium. The highest state of development of the family is reached by members of the genus *Volvox,* after which the whole family is called. Here also the colony consists of a hollow gelatinous sphere, which may reach the gigantic size of a twenty-fifth of an inch; we may well call one twenty-fifth of an inch gigantic in a world where we usually measure things by a unit—called a micron—which is about a twenty-five thousandth of an inch. Now within that hollow envelope of *Volvox globator* are disposed between 12,000 and 22,000 single cells, the majority of which are purely vegetative. The Volvox colonies move similarly to those of Eudorina. But these things must be seen under the microscope, using living material, to be appreciated in its perfect beauty; pictures and prepared slides give no idea of the living, moving reality.

Other objects of beauty are found among the slimy tufts so common in ponds and rivers. Here we meet with numerous species of the genus Spirogyra, known even to the student of elementary botany. The cells are united into filaments, and each cell is traversed by at least one longitudinal spiral band containing the green colouring matter chlorophyll and numerous colourless spherical bodies; often the number of these chlorophyll bands in each cell varies between two and four or even more. Fig. 10 shows a common Bengal species—*Spirogyra nitida*.[10]

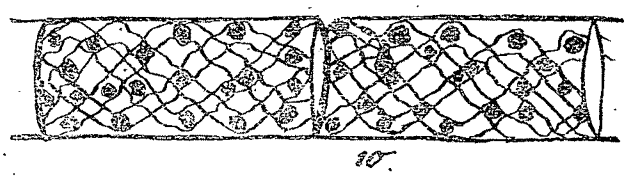

Fig. 10.

We now return to the Desmids. They are unicellular forms, each cell consisting in most cases of two distinct half-cells, as a rule marked off from each other by a median constriction. The variety of forms is truly astonishing. Some remind you of the new-moon, others of cog-wheels, some of twin-anvils, again others of microscopic jelly-fish, or you may meet with the prototype of the Star of India.[11] Some are smooth, others densely beset with minute warts, still others are provided with horns or spikes or innumerable thorns and prickles. A large number of them live singly, but you find them also forming long chains.

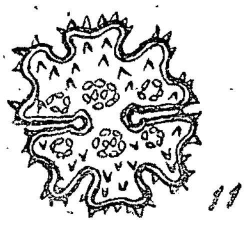

Fig. 11.

But for an infinite variety of forms and for beauty of the markings on their siliceous skeletons nothing in the whole plant-kingdom can beat the Diatoms. Generally speaking their external skeleton may be compared to a pill-box consisting of two end-surfaces, the valves, which often are bent over at right angles to form the "mantle," which is continued, directly or indirectly, into the lateral girdle-bands which fit one over the other. Within this general scheme we meet with an astonishing variety of forms. Diatoms either float in the water, forming part of what is called the plankton of ponds, lakes, or the ocean, or they attach themselves as ground-diatoms to the bottom of the various accumulations of water, as to stones or rocks or parts of other aquatic plants. They either live singly or they are united into colonies, which may resemble chains or star-like clusters or tiny barrels joined together endways by hooked couplings, or miniature barrels united by short drums fastened together by a sort of mortice and tenon joint as one sees it in modern machinery or they may bear a striking resemblance to colonies of polypes, or, when enclosed in cylindrical gelatinous envelopes, to much-branched tufts of lichens or filamentous algae. The markings on the siliceous skeletons are always of the most wonderful symmetry; in some species, especially those of centric design, the pattern consists of innumerable hexagons of absolute regularity. Among some of the most common forms we observe such as resemble tiny boats; others recall the pictures of insects or centipedes. Botanists who have neither time nor inclination to devote themselves to a specialistic study of the diatoms sometimes tease diatomists by calling them "diatom enthusiasts." But no one who has even superficially made the acquaintanceship with this fascinating subject can help becoming a "diatom enthusiast." Those who wish to acquire an idea of what wealth of beauty is hidden in the microscopic world of diatoms need only refer to the well-known treatise by the late Dr. Carpenter or the works of the great diatomist Van Heurck.

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[10] *Spirogyra nitida. Bengal ponds.*

[11] *Euastrum spinulosum. Found in Bengal Filter beds.*

Another type of beauty is exhibited by the much larger Brown and Red or even Green Sea Weeds. They are mostly marine algae. Unfortunately for us who live in Bengal they live in clear water, and our friends living in Bombay, Ceylon or in the coast towns of the Malay countries have much greater opportunities for collecting in what rightly may be called submarine gardens. The rocky coasts of Devon, Cornwall, Ireland or the Channel Islands are well known for their wealth of beautiful sea weeds. The reader will find pretty pictures of such sea weeds in Shirley Hibberd's little treatise entitled "The Sea Weed Collector."

"And what is the good of all this?"—some people will ask. There are people living in this world of ours who consider nothing to be good what is not good to eat or drink or what does not provide them with clothes or the various comforts of life. I have nothing to say to them. On the other hand, an inquiry into what is useful to mankind is perfectly justified. And further, there is no branch of what sometimes is called "Pure" Science that some time or other has not found or, at some future time, is not bound to find some useful application. The purely scientific researches of the great physicist Hertz, based on the mathematical investigations of Maxwell, led to the invention of wireless telegraphy, and the highly abstruse mathematical and not less skilful experimental researches into the structure of the atom are certain to result finally in discoveries of immense practical value. On the other hand, investigations into purely practical problem often open new avenues to purely theoretical research work.

To return to our algae! In some places in Upper Burma quantities of a species of Spirogyra are sold in the bazars as an article of food. A number of species of green, brown and red algae are used as food in Japan, and in Hawaii certain green algae which go by the euphonious names of Limuele-ele and Limu pahapaha are collected for similar purposes. The "Irish Moss|" is employed in the preparation of jellies, and the "Bladder weed" or "Swine Tang" is used as a food for pigs. In Ireland a kind of sweetmeat even is prepared from a seaweed. An alga, the "Birds' nest weed," is gathered by swallows to construct their nests, and these birds' nests, being considered by the Chinese a great delicacy, form quite a respectable branch of commerce, and the finest sort fetches a high price.

Formerly sea-weeds were largely used in the manufacture of "Kelp," ashes rich in potash; it is this potash content

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which makes of sea weeds a valuable manure. Bromine and iodine compounds are absorbed by sea-weeds from sea-water, and those algae thus become important sources of the elements bromine and iodine.

Of much greater use to mankind than those sea-weeds are the much smaller algae which form a considerable portion of what is called "Fresh Water Plankton." By plankton we understand the aggregate of plants and animals which float passively and often are driven by the wind, according to its direction, from one end of an expanse of water to the other; some of them are of some size, such as the *Tākāpānā* or the various species of Lemna, which often cover entirely our ponds; some others are just visible to the naked eye, like some small crustaceans which sometimes appear in immense numbers in tanks or the backwaters of rivers; others again—and they form the majority—are microscopic algae and minute members of the animal kingdom. Under the influence of sunlight the green and blue-green algae decompose the absorbed carbonic acid and deliver quantities of oxygen to the water, in which they live, three times as great as could be absorbed by the water from the atmosphere directly during the same interval of time. During bright sunshine this evolution of oxygen is very rapid, and without this action of the algae the supply of oxygen to the water would not be sufficient to keep the organisms, including fishes, alive in larger numbers. A flourishing water flora is an absolute necessity for successful pisciculture. Fishes live largely on the smaller animals forming an essential part of the fresh water plankton, and these little animals again—many of them relatives of the jhingri—live largely on floating algae. Indeed, the economical value, as far as pisciculture is concerned, of tanks, jhils, and rivers depends on the fauna which serves as a food to fishes and consequently on the algae and those microscopic members of the biological province which forms a link between the plant and animal kingdoms.

An important question from a sanitary point of view is the question of what has been aptly called the self-purification of ponds, lakes and rivers. It is well known that such waters are often fouled by organic refuse matter and that notwithstanding that fact the waters may, after some time, become again clear and lose their offensive odour. This self-purifying operation is chiefly performed by microscopic animals and plants after sedimentation of the coarser impurities. The first to get hold of the impurities are putrefaction bacteria, the action of which results in the production of ammonia, acetic acid, sulphuretted hydrogen, peptone and various other organic compounds of complicated structure. These compounds are assimilated by plankton algae and other members of the plant kingdom. As soon as these have consumed the obnoxious substances they are swallowed by small members of the animal kingdom which in their turn serve as food to larger crustaceans and fishes. It may, however, happen that ponds and rivers are so overloaded with refuse matter that the sanitary agents referred to above are unable to fulfil their obligations and that in consequence of this state of things sulphur bacteria, oscillatorias and certain infusoria gain the upper hand. Some of these occur so constantly in contaminated waters that they can be used as indicators, the presence of which alone is a sure proof of the insanitary state of the water which has been subjected to microscopic investigation. In the process of self-purification the oxygen exhaled by algae plays an important part.

It must be noted in this connection that the total absence of refuse and other decaying matter would soon cause the disappearance of micro-organisms; such disappearance would cause the dying-out of the smaller crustacea and this again would lead to the elimination of most of the fishes.

Some of the blue-green algae, namely those which form thin films, are of considerable use in filter-beds, whilst others which form a thick felt prove themselves an intolerable nuisance.

A detailed investigation into the Algal Flora of Bengal is being carried on in the Botanical Department of the College of Science, Calcutta University. The results of this investigation will be published in the University *Journal of Science.*

P. BRÜHL

The illustrations accompanying this essay have been drawn by my student and fellow-worker, Mr. Kalipada Biswas.—P. B.

SREE *RADHA'S* LAMENT

I long to see his face divine,
I wish I had a million eyne !
The twain I have—they vainly shine,
By lashes dark concealed !
And thus my eyes—they still repine,
Condemn their Author's crude design,
By such defect revealed.

The fish performing penance true,
Secured they have their lashless two :
Like penance let me strictly do,
Their faultless eyes to gain.
Dissolved in bliss, so I may view
My Love's sweet face, to me e'er new :
My hope, alas, is vain !

My lashes dark I would not mind,—
These eyes of mine, could they but find
The means this earth to leave behind,
Through space their flight to wing.
Then nought would once their vision bind,
They would be blest beyond their kind,

They, like the lark, through heaven would fly,
Of grief they ne'er would heave a sigh;
But, like the bird, still soaring high,
Flit through the skyey dome.
The nectar drink that falls from sky,
For which they ever hardest try,
As through the earth they roam.

—*Anonymous Vaishnav Poet.*

THE LOVING DEVOTEE TO HIS BELOVED GOD

E'er since my birth I've gazed my fill
Upon thy peerless beauty's store:
These eyes of mine unsated still,
Still yearn to gaze for evermore.

Through æons long, pressed heart to heart,
In sweets of love our days have sped:
But mine is still the bitter smart,
By those still felt whose hearts have bled.

—*Vidyapati.*

JYOTISHCHANDRA BANERJEA

THE ROSE OF INDIA

ACT III; SCENE III

[*Scene.* A room in Jerusalem. Discovered St. Peter seated, Mary Magdalene, Salome, and several disciples in a group.]

St. Peter—

Greeting, beloved, who in our presence stand.
To our command obedient, shrinking not
From sacrifice of substance at the call
Of duty to the Church's common weal
And the relieving of the poorer saints:
Thereby yet greater blessing for yourselves
Obtaining, as you offer here your gifts.
Who standeth first?

A disciple—

Father, beloved in Christ,
A man of Cyprus, Barnabas by name.
Withal a Levite, who hath sold his land
And brings the price upon him.

St. Peter—

It is well.
(*To Barnabas*) May Heaven reward thee, brother, for thy gift
With eager-heartedness but ill content
Till thou with all thy gifts art dedicate
Unto a higher priesthood. Who is next?

Disciple—

Jason of Tyre, a merchantman of dyes,
Brings three years' profit.

St. Peter—

Greater profit still
Thereby securing, where no moth corrupts.

Disciple—

Next Lucia, Rhoda, Junia, Syntyche
Bring a month's earnings.

St. Peter—

Half to them restore.
Children, ye have our blessing. Who is this?

Disciple—

Carpus, a Cæsarean fisherman.

St. Peter—

Brother, I too was fisherman, and am.
One day thou shalt a-fishing come with me
For souls of men. What is thine offering?

Carpus—

Of gold and silver, master, have I none;
Such as I have I offer. 'Tis a stone
Found near our harbour by my little son.

St. Peter—

Is it not writ, the stone rejected once
Became the corner's headstone? Like of this
Ne'er saw I on the Galilæan shore,
Nor can I reck its worth.

Disciple—

There stands without
Habban, a merchantman of India
From Gondophares' court but now returned.

St. Peter—

What is his business?

Disciple—

To deliver letters
From the Apostle, Thomas Didymus,
And tidings of his welfare.

St. Peter—

Bid him enter.
No messenger than he more welcome here!

Mary Magdalene—

O welcome, welcome to our waiting eyes
First messenger of one who far away
Yet moveless bides in praying hearts at home!

Salome—

Thrice welcome, if he bring the longed-for news
Of the Apostle's safety and his good health,
And of the spreading kingdom of our Lord.

(*Habban delivers letter to St. Peter, who reads it aloud, standing.*)

St. Peter (*reading*)—

Thomas, a servant of God and an Apostle of Jesus Christ, to the Saints which be at Jerusalem, Grace, mercy and peace from Him who giveth abundantly to His elect in all places, and also in this, where numbers of those that dwelt in darkness have, by the grace of God, and our ministry, been gathered into His fold and now hear His voice. Unto His gracious keeping we commit ourselves in this perilous time, when the wrath of the tyrant is upon us, and wolves threaten the flock. How long the shepherd may remain unsmitten, I know not—God knoweth. Should I to Jesus and His Resurrection have borne my last witness ere our faithful messenger can deliver this letter into your hands, be glad and rejoice greatly, for this cause, that the shedding of my blood hath watered the tree of Life planted here in the wilderness and waste places of the world. Pray for us, brethren, whether in the flesh or out of it. There salute you with me Xanthippus, a faithful brother, and all the saints that are in Narankot. Grace be with your spirits. *Amen*!

St. Peter—

In silence, children, let us trust them all
To the great Master Shepherd's tender care,
Where'er in God's wide universe they be. (*A pause.*)
What danger threatened, in what evil plight
Stood the Apostle, when he wrote these words?

Habban—

Danger to life most grievous, Holiness,
King Gondophares, stirred with mighty wrath,
Had sent his royal guard to seize the person
Of that well-loved Apostle, unto whom
Came tidings of the approach of armed men.
Whereat, of others more considerate
Than his own safety, did the Apostle send
His sheep to shelter, and entrust to me
(Though fain to share his fate) his messages
And bade me bear them hither o'er the seas.

St. Peter—

Wherefore was Gondophares thus enraged?

Habban—

Because the Apostle could not shew the King
The palace wrought, on which his heart was set,
Though charged to build it, and supplied the gold.

St. Peter—

Was not the gold returned?

Habban—

Nay, Holiness;
'Twas spent on works of mercy, which should build
(So said the Saint) his palace in the heavens.

St. Peter—

That may be, yet the earthly gold was given
To build an earthly palace, and the debt
Has not been rendered. Still the gold he gave
Is due to Gondophares. Heavenly goods
May not be marketed, nor yet be bought
With gold and silver, things corruptible.
Since Christ at greater cost redeemed our souls.
In this the Church's honour is at stake.
The gold unto the King must be restored.

Habban—

'Tis a great sum, no smaller, Holiness,
Than are thrice fifty talents—large enow
For a King's ransom.

St. Peter—

God will all provide.
Lo, at our feet the offerings made to-day,
Golden in sight of angels!—these can go
Unto the solving of the Church's debt.
Reckon their sum, if haply it suffice.

(*Habban counts rapidly, then rises, shaking his head.*)

Habban—

Here scarce are fifteen talents, Holiness.

St. Peter—

'Tis a beginning, add thereto the stone
Here in my hand. Its value thou shouldst know.

Habban—

The Maharajah's diamond that I sold
Isaac the Jew!

Mary Magdalene—

He died that very night,
The night that Thomas sailed for India.
The diamond must have fallen from his hand
Into the street. A child discovered it;
His father, Carpus, brought it here to-day.

St. Peter—

What is it worth ?

Habban—

Alone it is enough
To pay King Gondophares all his due.

St. Peter—

Then bear it back with thee to Narankot.
And, if our brother Thomas be alive,
Present it for his ransom ; but if he
Be fallen asleep, to his destroyer say :
Here is the value of the gold thou gavest !
Take it, and forfeit thou for evermore
The palace that he built thee in the skies.

Habban—

With this in hand, I have no fear to face
My master, be his anger ne'er so fierce
Against his servant.

St. Peter—

Habban, fare thee well.
Yet, ere thou start, repair to Mary's house,
Mother of our beloved disciple, Mark ;
Where shall await thee ere the set of sun
Our letter to the Church at Narankot—
The assembly is dismissed. To all be peace !

(*St. Peter rises—Exeunt all, except Mary Magdalene, Salome, and Habban.*)

Habban (*delivering letter to Mary Magdalene*)—
This for thee, lady.

Mary Magdalene—
Oh, my heart is torn !
And I must live in this uncertainty,
Now hoping, now despairing, never sure—
How long, I know not. Now within my soul
Shall hear a voice " He died that very day "
And in the solemn hush shed lonely tears,
And on the grandeur of his passing muse :
Now catch another whisper, " Nay, he lives,
And thou hast him to live and wait for still."
Then back again shall come that haunting fear
E'en as a storm-cloud steals athwart the sun :
"They slew him—thou shalt never see him more."
O but to know the truth, whate'er it be !
Yet nay, if in that dreaded voice it lay,
I would not know it, but would linger on
Hoping till on the horizon hope's last gleam
Should fade, and with it die the light of life.

Salome—
O Mary, alas for those who still desire
Some lesser light than He who lights the world!

Mary Magdalene—
Hadst thou then no ambition for thy sons,
No grief when James was martyred ? O ! forgive me,
Salome, thou hast suffered—thou hast loved—
And love must always suffer on a cross
Yet were a loveless life an empty shard.

(*She unrolls the parchment, and reads it.*)
O Thomas, Thomas, couldst thou only see,
Thou needest not have doubted it is thine!

(*Bursts into tears. Salome silently comforts her.*)

Habban—

Is there no answer, lady, ere I go ?

Mary Magdalene—

Ay, I will write it now for thee to take.

(*She writes, during which a voice is heard singing the following lyric.*)

The Secret.

When deserts stretch and ocean tides
Between us ebb and flow,
A secret in my heart abides
'Tis all the world to know.

When hours of waiting on us press
And time is footing slow,
That secret in our wilderness
Is all the world to know.

When sorrow clouds the lonely day,
And tears for absence flow,
The truth that turns to gold the grey
Is all the world to know.

It drives out gloom and lightens care,
It sets the heart aglow.
The secret, dearest, that we share
Is all the world to know.

Mary Magdalene (*giving the letter to Habban*)—

Now, Habban, hasten for the love of God !

CURTAIN.

(*To be continued.*)

FRANCIS A. JUDD

RHYMING ÆSOP

(A Review of a Still-born Book)

There was a time when I taught English to classes of young Indians. I used once a week or so to read aloud a fable of Æsop. Then they wrote it in their own words. The brighter ones always finished long before the rest, and for their benefit I would read aloud another fable about the middle of the hour. The fable one day was, "The Bat, the Birds, and the Beasts." When the first to finish asked me to read another, I felt a sudden disinclination to do so, and put the young man off by asking him to repeat the fable he had already written, but this time in verse. He wrote a very little of it so, in an irregular unrhymed metre. When correcting his paper, I added rhyme, and a few lines to those he had written; and while bicycling about on my business the next day, I finished the version in my head. A few days later, having to wait for something, I thought I would turn another of the fables into rhyme, and happening to choose "The Town Mouse and the Country Mouse," and finding it fall into a number of charming literary "vignettes," I fell in love with versifying Æsop. One of the "vignettes" was the reply of the Town Mouse to the question whither he was going:—

"I visit my Country Cousin,
Who lives beneath the ricks.
Poor are the meals he nibbles
Among the straw and sticks!"

Just as, when one is eating cherries, one chooses always the most tempting one left on the plate as the next to eat, so I chose always, as the next fable to put into rhyme, that one of those left that appealed most to me for beauty, or pity, or gentle truth. When I had done nearly all those that had that appeal for me, the desire to make a book that should be published began to stir in me. That meant rhyming all the rest—those whose appeal was not of beauty, nor of pity, nor of gentle truth, but of something very different. When the truth of the fable, to speak of truth rather than of beauty or of pity, was a gentle truth, and such is the truth of, say, "Belling the Cat," "The Hare and the Tortoise," and many another, I had tried to keep the whole tone of my version in keeping with gentleness, even at the risk of making it too pretty. What, however, was one to do, when, as in the fables of "The Wolf and the Crane," "The Fox and the Goat," "The Nurse and the Wolf," the truth was harsh or cynical? Just be harsh or cynical? One has so little wish to be. *It is* mere cynicism, when a wolf tells the crane that has pulled a bone out of his throat, that it is fee enough (a handsome fee was promised) not to have had her head bitten off. It is not mere cynicism, when a nurse speaks in a wolf's hearing of throwing a baby to it, if the baby cries, and then, when the baby has cried, sends angry dogs to kill the wolf, but it is not a gentle truth. It is a harsh truth that the terror of you may be turned to somebody's good, while you yourself remain vermin to the end.

What, further, was one to do, when the fable was dull; for dull some of them seemed to be, as the fable of the hart, whose death his antlers wrought that he so admired? It might be that what was dull was the moral appended to the fable. Dull, dull to stupidity, appears to me the moral "cunning often outwits itself," as applied to the fable wherein the fox tries to induce the cock, safely perched out of reach, to come down by telling it that the lion has decreed a truce till midnight. The fox, seeing the house-dog coming, slunk off, saying the dog was deaf, and might not, either, have understood. It was all a "try on," as we should say. It was one that did not come off, but all the same it was a "try on" and nothing more.

Dull, too, is the moral "You can't escape your fate," appended to the fable of the blind doe. She stood with her blind eye to the sea, but the hunter got a boat, and shot her thence. Or in my version :—

"There be
Boats, and that hunter he got one
For money paid unto the crew,
And shot the Doe, and it was done;
And then the dying creature knew

"You can't escape your fate", and neither,
Had I the seeing to it, should
That wooden moral's author either,
Unless, indeed, 'twas something good!"

The Doe, in some Does' heaven, telling the story, and using (but she would'nt) such slang as ours, might say it was a "regular *do*." So it was. One is prompted to ask if Æsop had phrases equivalent to "try on" and "do." The Grecians among my friends tell me that he hadn't.

While I was cogitating the question what to do with the dull fables, or the dull morals, an imp awoke in me, saying: "Play with laughter round them: make a light mock of them." People are always the better for being laughed at occasionally. So, presumably, are fables. I took that imp's advice. Sometimes the mockery was only in some little "tail" that I added to the fable, and it might not be Æsop or the fable that I mocked, but something else. Thus, to quite a simple version of "the Hart" I added the "tail":

"The thing I'm proudest of may be
A disappointment, worse than any.
Who knows? This book of rhymes you see
May never bring me in a penny,

If all the world should like it not—
But just as well the world may say:
'You thought them better, did you not,
Your serious poems?' 'Yes.' '*Not they*!'"

But oftener it was the fable itself. I tried to see that once in a way the tables were turned on the Fabulist—but in no seriousness, but all in play. So much was it pure play for me, that, when I had barbed a little dart against Æsop, as *rendered in the prose translation* (Jacob's) *that lay before me,* I was not to be deterred from shooting it off by any thought that the original Greek might be different. Thus, when I read that a Crow found a *little* water at the *bottom* of a *pitcher*, which the fable says it brought to the top by dropping stones into the pitcher; happening then, too, to think of the sound but tedious saws of nurses, etc., about the will and the way, and early rising, I could not resist the temptation to make my rhyme:

"There was
Some water at the bottom.

And now it is not there, but here?
Quite near the top? 'The crow
Might easily have chosen stones
Exactly square!' 'Just so.

'And square the pitcher.' Let who can
Believe the tale. To me
It is as dear and innocent
As anything could be.

Little by little you may try
The thing that can't be done.
You will not do it, though each day
You get up with the sun,"

which is true speech too.

I was even reprobate enough, as some will consider it, as to write the "Milkmaid" (she was to sell the pail of milk on her head; buy hens; sell their eggs; make profits, and be wedded in silk, and in Church toss her head at some rival) in two parts, the first in close enough correspondence with the Greek, the second being:—

"O Patty! I will not be hard
Upon you, Nay!
Your dream, it was the only card
You had to play.
You played it, and enjoyed the playing,
My sweetheart, that there's no gainsaying!"

That fable, as it happened, was the last I had had to do. After writing it I laid down my pen. In a little I took it up again, and having thought of the interest, the enjoyment, and the fun that I had got out of it all, I added this for a merry envoy:

"I've played this, and enjoyed the playing.
O Æsop, that there's no gainsaying!"

That was to say grace, and, as it proved, to say it at the fittest moment, for no beautifully printed and illustrated book was to follow. An eminent publisher, to whom I showed the better half of the manuscript "feared it would not make a children's book, and could see no other possibility." Another eminent publisher wrote: "the manuscript of your Æsop's Fables has now returned from my reader. His opinion is that there is small chance of making a commercial success of any edition of Æsop at the present time. This author, unjustly, is accounted food for babes, and must have copious illustrations to succeed at all. Even La Fontaine's versions stick at the present time." So be it, I say. The honour shall be another's. Meanwhile (such has been my thought) there is something that my "study" of the fables may have qualified me to say about them.

There is, first of all, something to say to the question, whether even a much happier English rhyming of the fables than my own, would make a book in these days. It may be doubted: what is the interest of Æsop compared with that of Homer? Yet an Edmond de Goncourt could say: "Le moindre roman psychologique me touche plus que tout votre Homère." It is not only with *romans psychologiques*, too, that the fables have to compete. Think, if the audience is of young people, of "Johnny Crow's Garden," of the Jungle Books, of the Alice Books, of the Brer Rabbit stories, "Jan of the Windmill," "A Flat Iron for a Farthing," "Treasure Island," "The Count of Monte Christo," and all the others. Think of those books, too (for they appreciate them more), when the audience is one of grown-ups, and add each man's favourite reading apart from such books. What Æsop can compete with "Guy Mannering" or "The Egoist?"

Yet if the lapse of time, with its great harvest of maturer books, has deducted from the interest of Æsop, time has also added to it. It has associations for its readers to-day that it had not at the beginning. That raises the question, whether in rhyming it one ought to give as literal a translation of the text as possible, or whether one might make one's venture for such a free rendering as Edward Fitzgerald might have given us. I am all for a rendering in the Fitzgeraldian tradition myself; such a one as the following:

THE WOODMAN AND THE TREES.

"We have so many branches,"
The Trees said. "Give him one,
The man with that bright thing in's hand—
An axe!" And that was done.

Now when all once was silent,
I listen for the stroke.
They fall down fast, the ancient Trees,
The Ash, the Elm, the Oak.

"Satan, you need not trouble,
Nor make so much ado.
The thing you want my hands to make,
My own heart prompteth to."

Very little of that is in Æsop, of course.

"The Belly and the Members" is the richer in association for us for having been told by Menenius Agrippa in "Coriolanus," and "Belling the Cat" recalls an episode of Scottish history. Similarly the "Wolf and the Crane," with its moral—greed and ingratitude are always found together—brings back Louis XIV and the "un ingrat et dix mecontents" that he said he made every time he conferred an appointment. That is so by whomsoever the fables are read, or rhymed, and however literal the version be. To any particular rhymer they may recall more, and, should he feel under no obligation to be too strictly literal, he may communicate the fuller association in his version. Sometimes what may put him upon that fuller association may be something as trivial as the modern habit of rhyming. There is the fable, "The Four Oxen and the Lion." The oxen were safe until they quarrelled. Then they went separate roads, and one by one fell a victim to the lion, until four heaps of bones remained to whiten in the sun. The versifier, let us say, wants a rhyme to "bones." That suggests "stones," which recall the Duke's "sermons in stones" in "As You Like It," which again recalls Carlyle's saying of Ruskin's "Stones of Venice," that it had been well called "Sermons in Stones." Each heap of bones was a sermon. There, then, you have the rhymer furnished with the almost ready-made verse:

There are four heaps of bones
That whiten in the sun.
Sermons there are in stones,
And there you've four times one.

Louis XIV, the versifier might think, with his "un ingrat," and that not only when the preferred one was greedy, but *always,* know one thing better than Æsop. That was my thought, and my next was of the story of when it rains in Skye. Always, the native replied to the tourist, when the wind is in the south or west, and usually when it is in the north. "Then," said the tourist, "you get your fine weather, when the wind's in the east." "Well," said the native, with a hesitating drawl, "may be." And then brightening: "But I have known it rain with the wind in the east!" So my wish was, until a friendly critic pressed me to renounce it, to have my version end with

You tell me that ingratitude
And greed are found together.
Only with greed? In Skye, God's rood!
It is always rainy weather!

To the Æsopian "Words may be Deeds," the moral of "The Trumpeter," one can hear Carlyle's responsive shout of "Aye! aye! A Luther's any day!" He would go to Wittenberg, Luther said, if it *rained devils,* Carlyle would quote to any doubter.

The subject of Indian politics will jump to the mind of anyone familiar with it, when the fable of "The Sun and the Wind" is read, with its moral—kindness affects more than severity—and, to mention a very different association, the Town Mouse's enumeration of the things they would have to eat recalls (to me it does, at least) Tennyson's "Across the walnuts and the wine."

If only a man here and there would know that Louis XIV knew one thing better than Æsop, everybody would know better than say, "Better no rule than cruel rule"—the moral of "The Frogs Desire a King." What anyone would say would be likelier to be:

"Better no rule than cruel rule"—
And yet I do not know.
It may be in the case of frogs.
With *men* it is not so.

So, too, if you had told the author of the "Clothes Philosophy" that "fine feathers make not fine birds," it would only have provoked him to say:

> "Fine feathers make not—as I live,
> That's just exactly what they do!"

Only a very critical spirit would quarrel with the moral of "The Dog in the Manger," but if one is a very critical spirit? The dog is sleeping comfortably among the straw in the manger, and will not give it up, when the ox comes to feed. So in the text the ox is made to go away hungry, saying that people grudge others things that they do not themselves enjoy. That may be true enough in general, the critic would object, but as to *that* dog and *that* straw, cannot you see, dear Ox, that enjoy it is just precisely what he did. Only the same too-critical fellow would ask—no, *he* wouldn't, but *I* will—if a dog were to snap at the reflection of a piece of meat in a stream, and were to drop the piece in his mouth, would it not lie clearly visible at the bottom for any intelligent dog to jump in after? Or are muddy streams, which do hide the things that fall into them, the only ones that reflect objects? A question allowable enough, when questions are being asked.

The chief interest of any rhyming must lie, however, in those charming literary "vignettes" with which it would abound; for the Greek does so abound in them:—each rolled over and over in the mind, like a pebble on the beach, until it had gained the last smoothness and polish. I gave one—capable, no doubt, of still further polish—at the beginning. Others (they will be seen, too, to be wonderfully varied) are:

> He sitteth by the stream,
> And playeth on his pipe
> An old Arabian dream
> Of men and maidens ripe.

"I know that men think pearls adorn.
For me, I'd give a ton
Of biggest pearls for barley-corn,
A peck or two, my son!"

There was a time when Satyrs wandered free
In every wood—goat-footed, hairy men,
With little horns upon their heads—and then
Fairies were seen beneath each haunted tree.

The House-dog said: "You must have starved,
O Cousin wolf, to be so lean!
Where soup is served and meat is carved,
There daily *I* am seen!"

"What wouldst thou, Mortal? Didst thou call?"
Death asked the Old Man. "Here I stand."
"Oh, thank you kindly—just a hand
To help me with these sticks. That's all."

The wolf is on the lone hillside:
He lappeth at the stream;
And near him is a little Lamb,
Come softly as a dream.

I am afraid I shall be accused of having quoted too freely in my review of my little book. It had come to wreckage; what I here offer to the public are spars and other flotsam gathered on the beach. If I have picked up too much (I admit I have), is it such a very great sin?

J. A. CHAPMAN

TULSIDAS

Dark and swiftly flowed the river, black Kalindi[1] broad
and deep,
For the rain was falling heavy; and against her banks so
steep

Raged the torrent. There he stood and called out loudly for a
boat,
Called out louder, but in vain, for here no fragile bark may
float.

Anxiously he looked across at yonder casement high above
The flood, where shone the golden beam,—the message of his
only love.

"Let the river rush and tumble, let the night be dark and
drear
"I must cross this foaming torrent, I have read her message
clear."

And he seized a floating log, got astride that parlous bark,
Safely reached he—Love his pilot—yonder bank so steep and
dark.

There he saw a mighty serpent hanging downward like a rope,
Clambered up its writhing body to his sweetheart full of hope.

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[1] The Jamna.

But she looked at him disdainful, and she said, " what use this love,
" Thus bestowed upon me, worthless, instead on great Rāma above ?"

At her words his eyes were opened; and he stopped to hear no more,
Plunged he headlong in the torrent, came out on the other shore.

Soon he left the banks of Jamna, unto Ganga turned his feet,
And in holy city Kashi, founded he his holy seat.[1]

For he was that great devotee, greatest Aryavarta knew
Tulsi—gentlest, noblest *bhakta,* unto Rama's Servant[2] true.

All through length and breadth of India, men and women, who can read
His sweet-sounding Hindi measures, draw in times of greatest need

Comfort from his noble tale of Rama, perfect Man and King;
Tulsi touched the heart of India, Hanuman taught him to sing.

Tulsi's house and shrine in Kashi still possess a power rare,
None but those who love not self can with safety worship there.

POST-GRADUATE

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[1] *Baithak.*

[2] Hanuman, himself the greatest devotee of Rāma.

LULARAK

[There is a beautiful well in Kashi called *Lulārak-kuṇḍ*, about which the following legend is told.]

The well of Aditya[1] beloved
Was famed throughout the land,
Its waters could the leper cure,
And make his limbs quite whole and pure,
Whether the foot or hand.

The young King's body was quite full
Of this most foul disease :
He came unto this holy well,
But never once did he believe
That simple water could relieve
His pain and bid it cease.

Yet still he came, and as a test
He dipped one finger in.
Lo, it was whole !—But no relief
To other limbs the waters gave,—
Because his fault was very grave,—
His unbelieving sin.

[1] The Sun.

He sued for pardon from the god
  For doubting thus the cure
These waters else had surely giv'n :
    For scores of years with humbled head,
    Unto Aditya pray'r he made,
  Until he washed him pure.

The monarch with a grateful heart
  Built up the well secure,
Nor entrance gave to unbelief ;
Such in the well found no relief,
  Nor those with thoughts impure.

POST-GRADUATE

III. SOME CHARGES AGAINST THE CALCUTTA UNIVERSITY AND ITS *PERSONNEL—contd.*

To tell the truth, no Indian University has as yet specialised in any branch of study and research for want of adequate provisions. First let us have specialism in India and then think of reducing some "branches and subdivisions" of the Calcutta University on the ground of specialisation.

Professor Sarkar states that "the method of the Calcutta University, is, therefore, diametrically opposed to the principles laid down by Sir Michael Sadler, who says, "The chief problems of Universities to-day are ....*how to lessen the prevalence of lectures and to substitute courses of guided self-training in library and laboratory, without leaving the idle without discipline and the inert without stimulus.*"

Sir Michael Sadler in an address to the members of the Leeds Theosophical Society made the above observations. No one denies that in an ideal university the prevalence of lectures must be lessened and courses of guided self-training in library and laboratory increased. But has Professor Sarkar taken care to realise the full significance of the above utterance? In the same address Sir Michael Sadler himself says: "*All these new developments involved heavy expenditure on personnel (the economic position of which was still in most cases far from satisfactory in all countries) and on buildings, libraries, and scientific equipment.*"

For the carrying out of research-work in different subjects, suitable places must be provided where students can work and teachers can conduct their classes or seminars. The Calcutta University Commission is of opinion that the Darbhanga Building has hardly room for the post-graduate classes and for the law classes, besides accommodating the Library of the Post-graduate Department, the Law College Library and the various offices. The fish-market was purchased to meet the demands for additional accommodation. In view of the increased cost of building, the Commission thinks that "*13 or 14 lakhs ought now to be allowed for the purpose*; *and the furnishing of the building would probably cost a lakh more. The accommodation in the Science College is too small. Therefore a neighbouring site should be acquired for about 4 lakhs and a sum of 6 lakhs should be provided for the building.*"

The Library is the centre of all research work. Scientific research requires a library as well as a laboratory but for humanistic research, the library serves the purpose of both library and laboratory. Training in research is mainly a question of learning to use the tools and if the tools are not there, the student cannot possibly learn their use. Further, for the efficiency of the library, the library staff must be efficient. Hence the Calcutta University Commission recommends that in order to make the library a first-rate library *a sum of 2 lakhs should be provided for initial expenditure on books and an annual library grant of Rs. 50,000 should be made for the further purchase of books and periodicals. It recommends that a man of professorial standing on a salary of Rs. 600-800 per mensem should be employed as librarian.* The Commission also recommends that the laboratories of the Science College in physics and chemistry are as yet only half-equipped and they will require about a lakh for their adequate equipment. The botany and zoology laboratories also need equipment and this equipment will require about Rs. 50,000.[1] *The Calcutta University Commission further recommends that the sum of* 1¼ *lakhs should be provided for the strengthening of the existing post-graduate staff.*[2]

Thus we see what development of courses of guided self-training in library and laboratory involves. It requires a large expenditure on *personnel*, on buildings, libraries, and scientific equipment. Most of the universities of the world have not been able to properly develop courses of guided self-training in library and laboratory for want of necessary funds, and the University of Calcutta may not form an exception. It is a pity that Professor Sarkar does not realise it.

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[1] Report, Volume V, pp. 287-88.

[2] Report, Volume V, p. 283.

Professor Sarkar urges that "the (University) staff should be made to give good value for the money spent on them." Our learned friend states that some University teachers get Rs. 200 to 400 for six to eight lectures a week. He takes Rs. 300 as the mean pay of the University lecturers. He further contends that a first class M. A. serving in a College gets much less than the University lecturer serving on Rs. 300 (the mean) though the former has at least fifteen hours' work a week. In the first place, it may be pointed out that Rs. 300 is not the average salary of a University lecturer as Professor Sarkar wrongly contends. According to the Calcutta University Commission (1917-19) Rs. 225 per mensem is the average pay of the University lecturers. Professor Sarkar holds that a University teacher gets more pay for less work as compared with a college teacher. This statement is not wholly correct either. It has been conclusively proved that a first class M. A. serving in a Government College gets more pay and has much better prospects than a University teacher. Even the average pay of a first class M. A. serving in a "privately-managed" college is not, generally speaking, less than the average pay of a University teacher. But the teachers of the privately-managed colleges have to work more, for their proprietors are unable to retain a sufficient number of teachers for want of necessary funds. These teachers, too, very often complain of their hard lot and leave their services for better ones whenever opportunities arise. When the members of the Calcutta University Commission went to inspect the working of the Ripon College, Professor Ramsay Muir of the Manchester University—a member of the Commission—on learning all about the working hours of the lecturers of privately-managed colleges, pointed out that the arrangements were very unjust and that the

Professor in his own University gave only one or two lectures every week. But Professor Sarkar avers that they should be made to give good value for their pay and he is a great man! In our college days in the nineties of the last century, lecturers in Government Colleges had generally to work about nineteen or twenty hours per week for a small salary. They had hardly any leisure either to think or to do any useful work. This bad system has, however, been changed. And no one grudges such professors better pay for less work.

The Calcutta University Commission which critically examined the working of the University nowhere observed that the University teachers were getting more pay for less work. On the contrary, it recommends that the average pay of the University teachers should be raised to Rs. 300 to make the service more attractive.

"*The 138 full-time University lecturers which provide the bulk of the instruction are paid salaries, varying in amount, which average Rs. 225 per mensem or £180 per annum. The funds do not permit these salaries to be increased, nor is any superannuation scheme provided; it is consequently difficult to retain the service of some of the abler teachers. It would demand an additional expenditure of almost 1¼ lakhs to increase the average salary to Rs. 300; which is not excessive for this grade of work, seeing that we have suggested Rs. 200 as the average of those of the college teachers who are not heads of departments.*"[1]

Eminent educationists are of opinion that "*if a man is to make additions to his stock of knowledge, he must have time to search, and he must have time to think.*"[2] We learn from a high authority that in France "*on the average University professors and lecturers only give three hours'*

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[1] Volume V, pp. 282-83.

[2] Report of the Second Congress of the Universities of the Empire (1921), p. 347.

teaching a week."[1] University teachers of other progressive countries, have not, generally speaking, got more than three or four hours' work per week. But Professor Sarkar contends that Calcutta University teachers who, according to his own admission, have eight hours' work per week "should be made to give good value for the money spent on them," *i. e.*, they should work at least fifteen hours a week. May we ask one question in all humility? What will our learned friend think of a man who suggests that Professor Sarkar should work thirty hours per week on the ground that he should be made to give good value for the salary of Rs. 800 or Rs. 900 that he draws? We now very well understand why most of the valuable proposals of the learned Professor were thrown out by the majority at the Patna Senate.

The learned Professor makes another valuable suggestion. To quote his own words, "The first item of reform is to enforce a commonsense financial system on the megalomaniacs of the Calcutta University, and to insist on a strict public audit and publication of the details of its income and expenditure." In this connexion it may be pointed out to the learned Professor that all the details of income and expenditure of the Calcutta University are audited every year by Government auditors under the direction of the Accountant-General of Bengal and they spend about eight months a year for this work. As to the demand for the publication of the details of its income and expenditure we take serious exception on principle. The details of income and expenditure of different departments of government are never published. Even the Municipalities and District Boards never think of doing so. Why should the University of Calcutta alone be asked to publish the details? Professor Sarkar tells us that this is a statutory obligation with the newer Universities of Benares, Lucknow, Dacca, etc. We do not know much about the University of

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[1] Sandiford, Comparative Education, p. 309.

Benares. But to our knowledge the details of income and expenditure of the Hindu University have never been published in any gazette or newspaper. In the Allahabad University Act (1921) we find no provision for the publication of the details of income and expenditure. Section 37(2) of the Dacca University Act provides that "*the accounts when audited shall be published by the Executive Council in the Calcutta Gazette.*" But where is the provision for the publication of the *details* of income and expenditure? We ask our learned friend to show that the details of income and expenditure of any Indian University have ever been published in any gazette or newspaper. What about his own University of Patna? Had Professor Sarkar the courage to demand, as a member of the Senate and Syndicate, such details of income and expenditure from the affiliated colleges of his own University? We learn from a friend of ours at the Patna University that at the time of the Budget Debate in November last, when a motion was made for such details of income and expenditure, Principal D. N. Sen strongly protested and the proposal fell through

The Universities of the United Kingdom, strictly speaking, are accountable to none except to their own Courts or Bodies Corporate for the money spent by them. The University Grants Committee leaves to the Universities the full decision as to how the annual grants are to be spent, and surveys carefully from outside the developments occurring in each of the Universities and suggests in its annual reports how the defects are to be remedied. The Chancellor of the Exchequer always recognizes the claims which the Universities have upon the State. Though the grants to the Universities come direct from the Exchequer, the officials of the Exchequer avoid anything like rigid control and they are content with a loose coupling between themselves and the Universities. Sir J. A. Ewing, Vice-Chancellor and Principal of the University of Edinburgh, gives us an account of a conference between Sir William McCormick and his University Grants Committee and the Vice-Chancellors headed by Sir Alfred Hopkinson. *The situation presented many possibilities of suspicion and doubt and the Vice-Chancellors were naturally afraid of the bearers of gifts.* They feared lest the grants should carry unacceptable terms and lest the autonomy, which they valued so much, should be curtailed. *But on exchange of views the thick atmosphere of doubt was dispelled and they found that "the grants were allocated* en bloc *and practically without conditions.*"[1]

In the United Kingdom the educational authorities have done nothing to interfere with the academic freedom of the bodies who receive their official grant, but in Bengal we hear that "financial matters are matters which are specially in charge of the House, and therefore there must not be any irritation shown by the Calcutta University when this House desires to inquire into them."

Our noble councillors aspire to self-government on the lines of the Dominions. So it is essential on their part to know how the Universities in the Dominions are being managed. We learn from Sir Robert Falconer, President of the University of Toronto, that they enjoy perfect autonomy in connexion with the administration of their Universities. He says :

"*The Board of Governors is independent; it presents its budget to the Government every year, and where a deficit has to be met, it is met by the Government on matters of policy and expenditure, not on detail ; and we have perfect freedom in the appointment of our staff and in the distribution of our funds.*"[2]

The Universities of Australia and New Zealand are also governed on the same principles.

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[1] Report of the Second Congress of the Universities of the Empire, pp. 296-97.

[2] *Vide* the Report of the Second Congress of the Universities of the Empire, p. 327.

The Universities of the United Kingdom and the Dominions are proud of their autonomy and they are bitterly opposed to any insidious proposal to hand over to officials their freedom, however wise they may be, but Professor Sarkar of the Indian Educational Service seems to be proud of the absence of autonomy in the Indian Universities and is for placing them under perfect Government control! He attacks some teachers of the Calcutta University for teaching heresies which have long been exploded in Europe but he himself is not ashamed of advocating ideas and principles on education which have long been exploded in Europe!

The Calcutta University Commission which carefully examined the relations between the Government and the Calcutta University makes the following proposal regarding the financial management of the University:

"It is in the sphere of finance that the relations between Government and the University must necessarily be most intimate. *We propose that Government should make a fixed annual allotment to both Universities, and to the various colleges included in the University of Calcutta, attaching such conditions as it may think fit to any part of such grants; and that it should then leave to the authorities concerned the responsibility for making the best use of these funds, requiring only a full annual statement of accounts, audited by the appropriate Government department, which should cover the whole income and expenditure of the University, and show clearly what use has been made of the Government grants.*"[1]

In order to safeguard the position of "the bearers of gift" the Calcutta University Commission proposes that "of the seventeen members of the Executive Council of Calcutta University two will be directly nominated by the Government of Bengal, in order to ensure that the chief administrative organ of the University does not get out of touch with the general educational policy of Government."

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[1] Report, Volume V, pp. 222-23.

Having regard to the present stage of development of Indian Universities, the Government cannot reasonably demand more rigid control. Too much detailed Government intervention undermines the sense of responsibility of the University authorities and brings about an element of confusion and complexity prejudicial to the growth and development of Universities. Financial management of all the Indian Universities is run almost on the same lines as those of the University of Calcutta. If so, why this talk of appointing a Committee to enquire into the financial management of the Calcutta University alone? It is highly surprising that men who aspire to self-government on the lines of the Dominions cherish thoughts and ideals on education which are in direct opposition to the progressive thoughts and ideals of the Dominions. The Bengal Council will do well to follow in the footsteps of the U. P. Council in this matter. We hope and trust that better sense will prevail among the representatives of our people.

In conclusion Prof. Sarkar observes that "after this, need one wonder why a scholar and educationist like the late Captain Charles Russell called the Calcutta University 'the mother of sham,' and a still greater authority, Sir Michael Sadler, wrote of an exposure of its methods as 'a piece of unforgettable laughter like the tale of *The Invisible Clothes*?'"

We are sorry to note that our learned friend always confuses issues. Throughout his articles he has all along condemned the present post-graduate department of the Calcutta University and has said nothing against the examining University of Calcutta prior to the passing of the *Indian Universities Act* of 1904. So as a consistent critic he should have cited an authority which has condemned the present post-graduate system. But the remark of the late Captain Charles Russell, we are afraid, relates to the period of the Calcutta University when it used to manufacture 'genuine articles' like Prof. Sarkar and others. The late Captain was never a great educationist and his observations may very well be left to take care of themselves !

Professor Sarkar calls to his aid the high authority of Sir Michael Sadler for condemning the present post-graduate system. We have not been able to trace the words that have been put in the mouth of Sir Michael Sadler. Professor Sarkar will probably enlighten us on the point. Sir Michael Sadler was President of the Calcutta University Commission (1917-1919). In the Report of the Commission we meet with the following observation regarding the post-graduate scheme:

" *We have said enough to indicate that the post-graduate scheme, though possessing many admirable features and furnishing a satisfactory solution of many difficulties, does not debar an extensive survey of the entire solution and the evolution of a comprehensive scheme of University development and reconstruction such as will be outlined in later chapters of this report.*"[1]

In face of such written testimony, we are unable to believe that he has made such an unmerited observation against the post-graduate scheme of the Calcutta University. Sir Michael Sadler will really be sorry when he learns that such a remark has been attributed to him by a member of the Indian Educational Service.[2]

In circumstances of great difficulty, the building-up of the teaching University of Calcutta has been a very arduous task—a task demanding great labour and devotion. Even an ungenerous critic like Professor Sarkar has been forced to admit that "*of all the Universities of India, that of Calcutta possesses the most promising material and ready appliances and manpower for higher work; while it would take years for the other universities to build these up.*" Sir D. E. Wacha—no mean authority—in a letter to the present Vice-Chancellor of the Calcutta University observes that "*by dint of perseverance and patience, combined with your broad-mindedness and wonderful liberality of thought and imagination, you have raised the Calcutta University to a high pedestal indeed—a model for all other presidential Universities to follow.*"

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[1] Volume II, p. 70.

[2] There is a persistent rumour that Sir Michael Sadler himself in a letter to the Editor of the *Modern Review* has contradicted the statement attributed to him by Prof. Sarkar but the *honest* and *independent* Editor of the *Leading Monthly of India* has not considered it expedient to publish it. We ask for a contradiction from the Editor.

It has been noted above that with all their care for economy almost all the universities of the world are in debts. The time-honoured Universities of Cambridge and Oxford are confronted with huge deficits. The Universities of Canada and New Zealand are similarly situated. Harvard and Yale, whose resources are ample, are in no better condition. The Universities of Benares and Patna also show deficit. Even the University of Dacca which has been getting nine lakhs, wants more for adequate equipment. Deficiency in revenue is the order of the day.

The teaching University of Calcutta is a great achievement. It has done invaluable services to Bengal in the course of its short existence. In the words of the Sadler Commission, "in circumstances of extraordinary difficulty, it has done a great work." To quote the words of Lord Ronaldshay: "the greatest landmark in the history of the University in recent years is undoubtedly the creation of Post-graduate studies." Any one having the good of his country uppermost in his mind must see to its well-being, must provide for its adequate maintenance. But there are men who are trying to ruin it or are trying to stop its further development on the plea of 'reform.' There are men who are fiddling when their *Alma Mater* is burning. They are not realising the full significance of their folly. They will realise it when it is too late. Such is the fate of this unhappy land! O tempora! O mores!

ABHAYAKUMAR GUHA

ITINERARY OF OU-K'ONG (751-790).

(*By Dr. Sylvain Lévi and E. Chavannes: a translation.*)

II

The King lived in winter at that place; in summer he resided at *Ki-pin*. So he was enquiring after the heat or coolness of the localities, and was following that which was advantageous to his health. At that time the King welcomed the Chinese envoys with great politeness. The King received the imperial favour with respect. The Chinese ambassador returned taking his verbal permission, and receiving all objects which were accredited to him. His mission was fulfilled; he returned to China. But *Fong-Tch'ao* (our monk) at that time became seriously ill. For many days he could not recover. So he was obliged to remain in the kingdom of *K'ien-t'o-lo* (Gandhāra).

Our Monk's Travels in Northern India :

After the return of the ambassador to the Court of China, our monk gradually recovered. He made a vow of devoting his life in the service of Buddha. He gave himself up to the *superieur Che-li-yue-mo.* He cut his hair and put on black robe. He had the intention of returning promptly to his mother-country, to see there his famous sovereign, to serve his parents with care, and to acquit himself wholly of the two duties of fidelity (to the sovereign) and of filial piety. He was, however, very glad that the *superieur* conferred on him a religious name in Sanscrit. That name was *Ta-Mo-T'o-Tou* (Dharma Dhātu), which in Chinese translation signifies *Fa-Kie.* Thus when he renounced the world, he was twenty-seven years old;—it was then the second *Tche-T'e* year (757 A.D.) marked with *Ting-yeou* signs, of the reign of

Sou-Tsong, the pious Emperor with bright intelligence, with war-like virtues, great sanctity, and penetration. When he became twenty-nine years old, in the kingdom of *Kia-che-mi-lo*[1] (Cachemire) he entered the altar to receive there all the injunctions.

He asked *Wen-Tchou-che-nie-Ti* (translated into Chinese, it means—*to know correctly*) to be his *Ou-po-tie-ye* (Upādhāya),[2] also asked *Ou-Pou-Tchan-T'i* to be his *Kie-mo-Ngo-Tche-li-ye* (Karmācārya; in Chinese the word signifies 'the master of morals'), and finally requested *T'o-Li-wei-Ti* to be his *Ngo-Tche-Li-ye* (ācārya) to impart to him the holy doctrines.

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[1] Kashmir was, precisely at that time, in friendly relation with China.

The first ambassador from Kashmir (History of *T'ang*, notice about Kashmir, Ch. ccxxi, II part, p. 9) came to China in the beginning of *K'ai-yuen* period (713-742 A.D). In the year 720, the King *Tchen-t'o-lo-pi-li* (Candrāpîda) had his name inscribed in the imperial register with the title of King. The virtuous Candrāpîda died, assassinated perhaps by his brother Tārāpîda, after a reign of eight years and eight months (*Rāja-taraṅginî* IV, 118). The murderer seized the throne, which he occupied for four years. He was afterwards replaced by his younger brother Muktāpîda, whose glorious reign lasted for about thirty-seven years (Rāja-taraṅginî, IV, 366). Muktāpîda, better known in Indian history under the title of Lalitāditya, tried to secure the support of China for widening the circle, already so vast from his conquests. General Cunningham is wrong in supposing that the fear of the Arabs had driven him to take that step. Rāja-taraṅginî (Ed. Stein, IV, 167) seems to make allusion to a triple victory over the Arabs :

" Trin vārān samare jitvā jitaṃ mene sa mummunim
Sakṛjjayam arer virā'manyante hi ghuṇākṣaram."

" When he had defeated *Mummuni* three times, he considered him vanquished, the true heroes take a single victory only as a stroke of chance." The gloss explains *Mummuni* by *Mumen Khān* ; the Sanskrit name would be a partial adoption of the title of *Emir al Mumenim*, borne by the Khalifs and which agrees with the other part under the equally incomplete form of *Hammira*. Troyer, in his edition and his translation, substitutes the word *dussanim* in the place of *Mummunim*. The History of T'ang shows that the proposed alliance had less for its object the defensive than the offensive. After the first Chinese expedition in the country of *Po-liu*, in the neighbourhood of Kashmir (between 736 and 747), the King *Mou-to-pi* (Muktāpîda) sent the ambassador *Ou-li-lo*, carrying a *missive* to the court of China for soliciting the establishment of a Chinese camp near the lake *Mo-ho-po-to-mo-loung* (Mahāpadma Nāga). He flattered himself that he could make provision for an auxiliary army of 200,000 men, and he reminded that, in concert with the King of Central India, he had blocked the five routes of Tibet, and obtained many victories over the Tibetans, then the dreaded enemies of China. *Cf. Raj-tar.* : IV, 168 :

" Cintā na dṛṣta bhauṭṭānāṃ vaktre prakṛitipāṇḍure
Vanaukasām iva krodhaḥ Svabhāvakapile mukhe." * *

[2] See, Les Religieux èminents, etc., p. 140, note.

These three masters gave to him the sense of Vinaya in seven collections.[1] In the convent of *Moung-Ti* he heard the çilas read. When that reading was over, he heard and practised the sense of Vinaya of Mûlasarvāstivādins. In fact, in Northern India, all belonged to the school of Sarvāstivādins (the word signifies in Chinese "to believe that all have an original root"). It is the king of Northern India, who built the monastery of *Moung-Ti*, after he had received the royal dignity. In Sanscrit, it is called *Moung-Ti-wei-houo-lo* (Mundi Vihāra). The word *wei-houo-lo* (Vihāra) in Chinese means "the place of residence." A place of residence is a monastery. There are also the monastery of *Ngo-mi-T'o-P'o-wan* (Amitābhavana ?), the monastery of *Ngo-nan-i* (Ananda ?), the monastery of the mountain *Ki-Tchè*, the monastery of *Nao-ye-lo*, the monastery of *Je-Je*, the monastery of the general (*Tsiang-Kiun*=Senāpati), and the monastery of *Ye-Li-T'e-Le*: it is the son of the king of *Tou-Kiue*,[2] who has founded it. There is

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[1] The "seven opinions" indicated by the text are probably identical with the "seven collections" of the Vinaya mentioned under different names by *I-tsing*, *Op. land*, p. 168, note, and p. 173, note.

[2] The power of *Tou-Kiue*, after having disturbed China, became low in the time of *Ou-K'ong*. After the reign of *Me-ki-lien* Khan (716-732) the intestine war had weakened the hordes. They fell soon after under the domination of *Hoei-he* (Ouigours). The centre of their power was in the N. E. of Kao-tch'ang (Kara Khodjo, near Turfan). Their territory extended in the east up to bank of the henceforth celebrated Orkhon and along the lake Baikal; while one of their tribes reigned in the confines of India and Afghanistan. The religious endowments of *Tou-Kiue* in Gandhāra and in Kashmir attest to the strange sagacity of the races in Central Asia in the time of *T'ang* dynasty. The conversion of *Tou-Kiue* to Buddhism, according to the Chinese historians, dates approximately from 570 A. D. "There was a Buddhist monk in the Kingdom of *Ts'i* named *Hoei-lin*, who had been taken by force and found himself among the Tou-Kioue. He spoke to *T'o-po-K'an* and told him:

"If the kingdom of *Ts'i* is powerful and rich, it is only because the law of Buddha is observed there." He then talked about the causes and the effects, the works and their retribution. *To-Po*, having heard this, believed those sayings and constructed a *Kia-lin* (Saṃghārāma). He sent an ambassador to the Emperor of *Ts'i* for asking from him the religious books called *Tsing-ming-king* (Vimalakîrti-sûtra), *Nie-pan-king* (Nirvāna-sûtra), *Hoa-yen-king* (Buddhâvatamsaka-sûtra) as well as *che-song-liu* (Sarvâstivāda-vinaya). *T'o-po-K'an* himself observed the Fast, made the tour to temples and also *pāradakṣina* round the statue of Buddha." [Stan. Julien, Documents sur les Tou-Kioue Journ. Asiat. 1864, 1, 353-354.] But the Buddhist charity conciliated badly with the military wild instincts the monastery of *K'o-Toen* (Katoun).[1] It is the King of Tou-kiue, who established it. There are more than 300 monasteries in that kingdom; the number of *stupas* and of images is considerable. It is established by the king *Ngo-yu* (Açoka) and 500 Arhats.

Thus, in making the pilgrimage of adorations and in learning the Sanscrit language, he passed four years in his travels. From morning till night he was diligent; he never chanced to be slack for a moment. The Kingdom (of Cachemire) is surrounded on four sides by mountains, which make it an exterior rampart; there it opens in all the three roads, on which have been established the closings. On the east, a road joins *T'ou-fan* (Tibet).

On the north, a road penetrates into the kingdom of *Po-liu*;[2] the road which starts from the gate of the west goes to *K'ien-t'o-lo* (Gandhāra). There is still another road; but it is always closed, except when the imperial army has the honour to go through it. *Fa-kie* (Dharmadhātu) lived there till the fourth year. Then he started out of *Kia-che-mi-lo* (Cachemire) and entered the city of *Kien-to-lo* (Gandhāra). There he resided in the monastery of the king *Jou-lo-li*; it bore the name of the king who founded it. The king came from the family of the ancient king *Ki-ni-tch'a* (Kanishka). There is also the monastery of *Ko-hou-li*, which bore the name of the son of the king; the monastery of *Pin-tche*, which bore the name of the younger brother of the king. Each of these monasteries has received the name of its founder. Then there are the monastery of *T'e-k'in-li*, founded by the son of

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of these people. When *Me-ki-lien* wished in about 720, to erect in his residence some temples consecrated to Buddha and Lao-tseu, his minister Tun-yo Kou dissuaded him:—"Buddha and Lao-Tseu," said he, "teach kindness and humility to men. It is not the science of warriors." (*Id*, II, p. 461).

[1] *Katoun* is a well-known Turkish title given to the wife of *Khan*. See *Terrien de Lacouperie, Khan, Khakan and Other Tartar Titles*, in the *Babylonian and Oriental Record*, II. 277, and III. 19.

[2] About *Po-liu*, see the notice of *Ma-touan-lin* translated by Rémusat, *Nouveaux mélanges Asiatiques*, 1, 194.

the king of *Tou-kiue*, the monastery of *K'otun* (Katoun) established by the queen of *Tou-kiue*, the monastery of *Ngo-che-tch'a* (Aṣta), the monastery of *Sa-kin-hou-li*, the monastery of sacred *stupa* of the king *Ki-ni-tch'a* (Kaniṣka), the monastery of *Yen-t'i-cha* of the king *Ki-ni-tch'a* (Kaniṣka). That monastery has many relics like the bone of the skull of Çakya, the Tathāgata. There is the convent " of *cha-mi* (Çramanera) who invaded the palace of Nāga," of the king *Ki-ni-tch'a* (Kaniṣka).[1] Thus travelling and worshipping he passed two years more.

It was then in the second *koang-te* year, marked with *kia-chen* signs of T'ai-Tsong, that he went in southernly direction towards Central India. There he saw and adored eight *stupas.* He was at *Kia-pi-lo-fa-sou-tou* (Kapilavastu) consecrated by the birth of Buddha, who descended from the heaven. Then he was in the kingdom of *Mo-kie-ti* (Magadha) where the dignity of Buddha attained the stage of Bodhi (bodhimaṇḍa). In the monastery of Bodhi (Mahābodhi-Vihāra), he passed the summer peacefully. He went to the city of *Po-lo-ni-seu* (Vāranāsi), to Ṛsipattana, to Magadha, where Buddha turned the wheel of law, then to the mountain Gṛdhrakûṭa, the scene of the preaching of (Sad) Dharma-Puṇḍarîka Sūtra ; then to the city of Vaiçāli, where Buddha announced his inconceivable decision ; then to the city of *Ni-Fouo-wa-to* (Devāvatāra), where the ladder of gems in three ways touched the earth in descending from heaven ;[1] then to the city of *Che-lo-fa* (Çrāvasti), to the garden of Jetavana given by Anāthapiṇḍada, where Buddha preached *Mo-ho-pan-jo-po-lo-mi-to* (Mahāprajñāpāramitā) for saving those who are outside the path; then to the city of *Kiu-he-na* (Kuçinagara), and to the woods of two Çālas, where Buddha entered Nirvāna. Thus he made the *pradaksina* of eight *stūpas*; there he offered food and rendered homage to them. He visited all the surrounding places. Afterwards he resided for three years in the monastery of *Na-lan-to* (Nālanda). Then he returned to the kingdom of *Ou-tchang-na* (Udyāna). He resided there in the monastery of *Mang-ngo-po.* The monastery of *Sou-ho-pa-ti* (Sukhavatī—in Chinese "the palace of the Sun"), and the monastery of *Po-mang-Pa'ti* (Padmavatī-in Chinese "Lotus"), were there.

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[1] *Hiouen-Tsang* recounts in detail the history of the Çramanera, contemporary of the King Kaniṣka (II, 47-53). He mentions equally "the convent of the ancient king" where is seen "a fragment of the top of the head of Tathāgata," and "the convent of the wife of the ancient king." *Hiouen-Tsang* placed, it is true, these monasteries in the kingdom of Kapiça, but the legend which he related about the convent of the Çramanera placed the scene of action and the site of the convent in Gandhāra, as does our text.

During these pilgrimages, he visited all the holy places. There is not much difference between what he said and what was said by *Si-yu-ki.*[2]

He was reminded of our holy dynasty, of his father and mother and all his paternal and maternal relatives. That desire consumed his heart. He thought of the depth of kindness which had made those, who nourished and brought him up,—kindness, which is as unlimited as the vast sky. He conceived the desire of returning to his country to see his prince and his parents. Prostrating himself, he asked the consent of *yue-mo-san-mei.*[3] The superior, when he heard it for the first time, absolutely refused him. *Fa-kie* prayed with earnestness twice or thrice to give him his reasons. The superior had already gone to the country of *T'ang,* in the 9th *Tien-pao* year (750 A.D.) and he was not satisfied with *Mahācīna.* When he saw that *Fa-kie* had a real and profound desire of returning, he granted him what he asked for. Then with his right hand, he gave him the Sanscrit texts of *Che-ti-king* (Daçabhumi Sûtra) of *Hoei-hiang-luen-king* (Bhavasamkrānti ? sûtra) and of *Che-li-king* (Daçabala sûtra) which

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[1] *Fa-hien* named the place *Samkācya*: *Hiouen-Tsang* called it *Kapitha.* See *Hiouen-Tsang,* II, 390.

[2] *Si-yu-ki* or the Memoirs on the western countries by *Hiouen-Tsang.*

[3] This *Yue-mo-san-mei* is no other than *che-li-yue-mo,* of whom he has spoken above. *Song-kao-seng-Tchoan* preserved his name and it is not known for what reason it is found here modified.

formed together one volume. He gave him at the same time, the relic of a tooth of the great saint Çakya Muni. Taking all these objects on his head, he expressed his affection and weeping he gave him those presents to be offered to his holy sovereign for accrediting him. He hoped, in fact, that the earth of the *Han* should spread and raise a great advantage to all beings. *Fa-kie* received these presents and saluted him kneeling, with his forehead against the earth. Following these rites, with tears, he took leave. He then desired to embark in the sea for going back, but he thought of the obstacles, which are met with in the furious waves, and he decided to go back to the imperial country by taking the road of the North. Our Emperor—holy and divine, pacific and war-like, has a perfect virtue which spread far and wide, and a renown which moved the five Indes; his wisdom surpassed *Fou-hi* and *Hien-yuen* (celebrated legendary Chinese Emperors), his prestige dominated eight sides of the Universe, he loved and contemplated the three jewels, he honoured sincerely the unique vehicle; the foreign countries brought him gold, the interpreters, who spoke many languages, came to present him tribute. *Fa-kie* brought the relic and the sacred Sanscrit texts, which he had taken, from Central India up to the Chinese territory.

His Return Journey:

Among the countries which he traversed, there was among the fifty-seven tribes of Tokharestan, a city named *Kou-tou.* Not far from the city to the east, there is a lake, the water of which is very deep. *Fa-kie* was seen carrying the tooth and books, and passing along the southern bank. At that moment, the divine Nāga of the place thought that there was a relic, the earth trembled, black clouds gathered together, the thunder roared and flashed, and hail and rain fell violently. A big tree was not very far from the bank of the lake; *Fa-kie* sought refuge under that tree with all caravan. The branches and leaves fell. From the hollow of the tree, came out fire. Then the chief of the caravan told them all:

"Who has the perfect jewel, the precious, inestimable object of a relic? (He thought that somebody has one.) Otherwise, why the divine Nāga is so angry? Let that thing be thrown into the lake, and do not make all caravan experience such alarm." *Fa-kie* then expressed his desire with a suppliant heart: if he could return to his father land and be of use to the kingdom,......he would be obliged to the power of the Nāga. From sunrise for four hours, he prayed most sincerely. The clouds dispersed and rain ceased. He thus succeeded in saving that miserable existence.

He advanced progressively and arrived at the kingdom of *Kiu-mi-tche*; the name of the king is *Toen-san-li*. Then he reached the kingdom of *Ni-che-tche*, the name of the king is *Hei wei-mei*. Afterwards he came to the kingdom of *Che-ni*. Thus travelling, he passed three years. He surmounted a great number of dangers and difficulties. In sacrificing his body and exposing his life, his heart was resolute to be grateful to his country. He desired to serve his king and parents. The compassionate saint watched him with solicitude.

Then he came to *Sou-lei* (also called Cha-lei—Kashgar), the King at that time was *Pei Leng-leng*, the deputy-governor was *Lou Yang*. He rested there five months. He afterwards came to *Yu-Tien* (also called *Tsien-Toen* or Houo-Tan —Khoten). In Sanscrit it is called *Kiu-sa-tan-na* (in Chinese it signifies the kingdom of mammals of the earth). The king is *Wei-tch'e-yao*, the deputy-governor is *Tcheng Kiu*. He stopped there 6 months. He arrived afterwards at the city of *Wei-jong*, which is also called the country of *Po-hoan*, the correct name is the country of *Pou-ou*. The deputy-governor is *Sou-Tchen*. He came afterwards to the city of *Kiu-che-to*: (the translation of the next phrase is uncertain).

Then he came to *Ngan-si*, there was the deputy administrator of "four garrisons," *K'ai-fou-i-t'ong-san-se*, *Kien-Kiao-yeou-san-ki-tchang-che*, great protector as second of *Ngan-si* and at the same time *Yu-che-ta-fou*, *Kouo-hin*. The King of the country of *K'ieou-tse* (modern *Kutche*, on the river Koksu, which falls in the lake Baba in Chinese Turkestan), is *Po-Hoan* (also called Kieou-tse). The correct name is *Kiu-tche.* Outside the Western gate is the temple of lotus in which is found a superior Çramana, whose name was *Ou-t'i-t'i-si-yu.* He earnestly begged him to translate *Daçabala sūtra*—there were about three pages which formed a chapter. The superior spoke with an equal ability the languages of "four garrisons," of India, and of China. Buddha pronounced that Daçabala sūtra in the kingdom of Çrāvastî. In the territory of *Ngan-si* is found the mountain *Ts'ien-ts'ien* and the temple *Ts'ien-tsien.* There is another mountain *Ye-po-che-ki.* In that mountain there is water which falls by drops producing a musical sound. Once, in a certain date of every year, they are collected for making an air of music. It is why the temple *Ye-po-che* is constructed there. He remained in that city for more than a year. He came afterwards to the kingdom of *Ou-ki*, the king there is *Long Jou-lin*, the deputy-governor is *Yang Je-yeou.* He stopped there for three months. Then he started from there and came to the district of *Pei-ting.* The deputy administrator of that district, *Yu-che-ta-fou Yang-si-kou*, with the monk of the temple *Long-hing*, asked the superior çramana of the kingdom of *Yutien* (Khoten), *Che-lo-ta-mo* (çiladharma) to translate *che-ti-king* (Daçabhûmi sûtra). The superior read the Sanscrit Text and translated the words; the Çramana *Chan-sin* verified the sense, Çramana *Fa-kie* verified the Sanscrit Text and the translation. The version of *Hoei-hiang-luen-king* was made in the same manner. When the translation of the sūtras was finished and the copy was made, there came the general protector of "the four-garrisons" and of *Pei-t'ing*, the imperial envoy *Toan ming-sieou* at *Peiting* (in the thirteenth day of ninth month of fifth *tcheng-yuen* year, 789 A.D.—the year with *i-se* signs). With *Nieou-Hin*, secretary of the administrator and *intendant* of requests of that district, with *Tch'eng-Ngo*, *intendant* of the district and with other persons, he followed the envoy for going to the court. At that time, as the river of sand (Gobi) was insuperable, he took the road of *Hoei-hou* (Ouigours). But as *Chen-yü* (the title of the king of *Hiong-nou*, a Turkish race) was not a follower of Buddhism, he did not permit him to carry the Sanscrit books with him. He left them at the library of the temple *Long-hing* at *Pei-ting* (Ouroumtsi). The Chinese translations which he had made, he brought them to the capital following the envoy. In the second month of sixth year, he arrived at the superior capital (790 A.D.). An imperial decree ordered him to reside in the hotel of Ambassadors at the *Ti-long* gate. The envoy of the court, *Toan ming-sieou* then took the relic of tooth of the real body of Çakya, also the translated sūtras and the presents to the palace. The imperial kindness transmitted them to *Tso-chen-ts'e-kiun* with the order to copy the text of these sûtras and to bring at the same time the tooth-relic of Buddha. Then *Tso-kie-kong-to-che Tao wen tch'ang*, after having made the copy according to the edict, presented it to the palace and made this request: "The monk *Ou-k'ong*, who has no titles and who has come from *Ngan-si*, is aged 60 years. His former name was *Fa-kie* his family name was *Kiu* and personal name *Fong-tch'ao*. I ask that he may reside in the *Tchang-king* temple." That year, on the twenty-fifth day of the second month (Ou-ko'ng) received a decree which conferred upon him a real rank: the rest was done according to the request.

Moreover, the *intendant* of requests of the administrator of the district in question made a request on the subject of titles (to be accorded to) him who is called in the world *Kiu Fong-tch'ao*. On the fifteenth day of the fifth month, an imperial decree conferred upon him the titles of *Tchoang-ou-tsiang-kiun*, assistant officer to *cheou-tso-kin-ou-wei-ta-tsiang-kiun*, and *che-t'ai-tch'ang-k'ing*. Besides, there was an imperial decree in these terms: Decreed: "That *Nieou Hin*...and his companions have made a travel by which they have passed from *Leou-cha* (desert of Gobi) up to the Western kingdoms. They have received inspiration from the three hosts to reform themselves, they have augmented the desire of tying the places situated at 10,000 *li* from the court, they have marched through rains and clouds without getting tired, the tribute that they have brought arrived well, they have increased the glory of *Fan k'iang*, realised his desire, they have recalled the memory of *Pan Tch'ao* going far; that they be elevated to the important grade to encourage the ambassadors. It conforms to the precedents."

That year, therefore, he whose former name was *Fa-kie* and who was now called *Ou-k'ong*, having obtained from the imperial favour a veritable title, at the same time the right of carrying the hat and boots of the officer, received these honours in impressive confusion, doubting his capacities and believing himself to be indigent. He, therefore, withdrew to the temple *Tchang-king*. He, then, returned to his native country; he found that the trees planted on the tombs of his parents had already become great, that there was not one among his brothers and cousins. In his whole travel, he had passed forty years; it was in *Sin-mao* year (751 A.D.) that he had started for the West, and now, it was *keng-ou* year (790 A.D.). He regretted for not having maintained his parents, but he rejoiced having met with a favourable epoch. The tooth and sûtras which he offered, he wished to present them to the sacred longevity of the Emperor. *Che-ti-king* (Daçabhumi sûtra) which he had translated during his travel and which he now offered in manuscript formed a work of 121 pages collected in nine chapters. Buddha at first, for coming to the good thought, passed two weeks, then changing the form, in the residence of the god Maheçvara, in the palace of secret treasures of gems, he exposed that sûtra. *Hoei-hiang-luen-king* was exposed by Buddha, when he lived on the peak of mountain Vajra-mani-ratna with the great Bodhisattvas. The translation formed three and a half pages which constituted one chapter. As for *che-li-king* (Daçabala sûtra), as said before, the translation formed three pages which comprised again one chapter. Three works in all made up 129 pages and formed eleven chapters comprising one book. Considering, however, that the sûtras are not comprised in the catalogue, and believing that, when numerous years and months will pass away, it may not be suspected that those were apocryphal books, he said:—"Now, I ask that they be inscribed thus—*written under the T'ang, during Tcheng-yuen (785-804) period, of the catalogue of Buddhist religion made during the K'ai-Yuen (713-741) period.* Now, since I have taken permission from the holy *T'ang* dynasty till to-day, there are four generations (of emperors). Under the deep mist and clouds, which overwhelmed me, I have passed forty years. I have made pilgrimage to adore the holy vestiges. The kingdoms and cities, which I have traversed, in some I have made lonely visit of adoration, in others I am belated ten days, in others I have passed many ten days, in others I rested many more months, and in others again I have stopped one or two or three or four years. Sometimes I have made happy encounters, sometimes I have been face to face with terrible brigands. The moments of joy have been few, the subjects of affliction have been numerous. I cannot disclose all my heart in speaking in detail. I have the happiness of meeting a bright sage, who has a general high manner, which is essential. I hope that by his beneficent conduct, he will spread and propagate the religion for many generations."

I, the Çramana *Yuen-Tchao*, I am only a man of little genius and have no literary talent, but I rejoice having found a favourable time for honouring the translation a second time. I have composed a "continuation to the Memoir by Tables" for describing the true vehicle, and I have composed at the same time "the sequel written during the *K'ai-Yuen* period" (713-741). The *bhadanta Ou-k'ong* has related all his travels, and confided to me the account with care, to annex it to the Tables and to the catalogue and to make it a guarantee to what is said. During many years of continuation I have asked and traced up the beginning. I have received with respect his oral explanations. With my imperfect style and my incompetent ideas I have put them in order.[1]

PHANINDRA NATH BOSE

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[1] From the notice consecrated to *Yuen-Tchao* in *Song-Kaos-eng-tchoan* (Ch. XV, pp. 29-30), we learn that he had *Tchang* as his family name and that he was born at *Lan-T'ien*. In 778, he was charged with thirteen other monks with a considerable work bearing upon the revision of ancient and new explanations of sacred books. Among the numerous works of which Yuen-Tchao is the author—*Pan-Jo-san-Tsang-siu-Kou-Kin-fan-i-t'ou-Ki* in three chapters or sequel to the Memoirs by Tables of ancient and modern translations, composed by the master of Tripitaka, Prajña; and *Tcheng-yuen-sin-K'ai-yuen-che-kiao-lou* in three chapters, or sequel written during the *Tcheng-yuen* period of the catalogue collected during the *K'ai-yuen* period. *Yuen-Tchao* died at the age of eighty-two, but we do not know on what date.

GLOOM AND GLOW

I. *Despair.*

So sweet is life, so sweet is love,
So hard it is to die;
This joy begone, this light put out,
Be-still'd for heart heart's cry.
The beauty, called the human form,
Dissolved in nothingness !
The thought a pain, the words a groan,
So horrid to express.
When death has done its cruel work,
Hear my muttered cry,
Tell me, tell me, man of mercy
Shall I then still be I ?
Oh ! shall I love and shall I think
When death has come and past ;
Or shall I then be empty naught,
Or in some form be cast ?
Of heav'n I've heard, I've heard of hell,
But what of them I know ?
O ! tell me shall I love and think
Whatever death may mow.

II. *Hope.*

O, what will happen after death,
Thy vexèd spirit asks;
A confused mass of words alone
Presents but hopeless tasks.

No moment's time thou canst be sure
Then how ensure the end?
What can be done is left undone
For what no thought can mend.
Of heaven and hell thou much hast heard;
But how to put to test
What some men teach and more men doubt—
The worst and the best?
What follows Death will follow death
The present is thy own;
As thou hast sown so thou shalt reap
In ways to man unknown.
True love of God and man is heaven.
If this is thine, 'tis well;
If love's expelled from heart and act—
'Tis hell! 'tis hell! 'tis hell!

III. Death the Deliverer.

I can but see what sees the eye,
The eye can but the little see.
I can but hear what hears the ear,
The ear can but the little hear.
I can but feel what feels the skin,
The skin can but the little feel.
I can but mind what minds the mind,
The mind can but the little mind.
I can think but little thoughts
Of things I am by senses told,
Them I arrange and rearrange
And spend on thoughts most learned lore.
O, come thou sweet Deliverer,
On mercy's errand come apace;

Break prison bars, break captive bonds,
And quick my jailor take to jail;
The bondage of the senses break,
The sway of littles sweep away,
I shall live and think and love
As does my God, and thy God, Death—
All-doer, knower, lover, all.
By being free of sense and mind,
Of nature His I shall partake—
But that's above thy might, O Death.
The bar removed—thy duty ends;
To willing souls free grace He sends.

IV. *Divine Symphony.*

Thou sendest forth the Day, 'tis Day,
Mysterious Night hides Day away;
As Moon withdraws her humid rays
The red Sun rises as Thy praise;
From Life's tree old, sere leaves are shed,
Green, luscious youths and maidens wed;
The spring is born, the winter ends,
The heat expires, the rain descends;
The flow'r decays, the fruit matures,
As poison kills, as med'cine cures;
Sun, Moon and Fire their tasks perform,
Dread earthquake, famine, flood and storm;
Birth, growth, decay, death, right and wrong
Are notes of one celestial song;
White Peace, Red War alike in Thee
Melt in serenest symphony;
O! Blessed they who have the ear
The Symphony divine to hear.

MOHINIMOHAN CHATTERJI

SAYYID ṢADR-UD-DÎN AḤMAD[1]

At the end of his work[2] 'Rawâiḥ-ul-Muṣṭafâ' Sayyid Ṣadr-ud-Dîn Aḥmad bin Karîm-ud-Dîn Aḥmad ul-'Alawî ul-Mûsawî ul-Hanafî ul-Qâdirî ul-Bûhârî ul-Bardawânî, gives a detailed account of his life and family. He traces his descent from Imâm Mûsâ Kâzim. Sayyid Husâm-ud-Dîn, an ancestor of the donor, married the daughter of Nuṣrat Shâh, brother of Fîrûz Shâh, and settled in Atrah, two miles from Bûhâr. The conquest of Bengal by the Timurides scattered the family, some members settling in Dhulsar. The donor's great-great-grandfather, Sayyid Muḥammad Ṣâdiq, settled in Bûhâr. He and his wife became the disciples of Sayyid Shâh Gulam 'Alî Dastgîr of Shâh Bazâr. Muḥammad Sâdiq had two sons, Sayyid Sadr-ud-Dîn and Sayyid Sirâj-ud-Dîn. Sayyid Sadr-ud-Dîn was studying at Murshidâbâd under the protection of a noble of that place, when he made acquaintance with Mîr Muḥammad Ja'far Alî Khân, then only a school boy. They lived together, and when the former was elevated to the *Masnad* of Murshidâbâd, Sayyid Ṣadr-ud-Dîn was appointed *Munshî*. He afterwards became *Mîr Munshî*, and later on the Madâr-ul-Mahâm of the *Nizâmat*. After a time he returned to Bûhâr and married Daulat-un-Nisâ, daughter of Qâḍî Tâlib Ullah of Jhîlû. Siraj-ud-Dîn, his brother, was married to Hâfizah Bîbî, daughter of Sayyid Bahâdur Husayn of Naldângâ in Huglî. When Lord Clive went to Murshidâbâd to settle the terms of the *Nizâmat*, Sayyid Ṣadr-ud-Dîn was deputed to act on behalf of the *Nâzim*. He enjoyed the favour of Shâh 'Âlam, who appointed him Mutawallî (Trustee) of the Bâ'îs Hazârî Parganah of Bengal, the *Waqf* estate of the eminent saint Sayyid Shâh Jalâl-ud-

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[1] Donor of the Bûhar Library (Imperial Library).

[2] Lithographed in Cawnpore, 1889.

Dîn Tabrîzî Ganjrawân Ganjleakhsh (d. A. H. 642=A.D. 1244), who came to Panduah in Râj Shâhî in Bengal, in the seventh century of the *Hijrah.* Sayyid Ṣadr-ud-Dîn subsequently attracted the notice of Warren Hastings, whom he assisted in the settlement of Bengal, Bihâr and Orissa. He founded the Jalâliyah Madrasah, which attained a wide reputation under the principalship of the celebrated Maulânâ 'Abd-ul-'Alî Baḥr-ul-'Ulûm. The date of the building is A.H. 1189=A.D. 1775. Sayyid Ṣadr-ud-Dîn attached the Jalâliyah Library, now designated the Bûhâr Library, to the Madrasha, and also a Mosque, built in A.H. 1187=A.D. 1773. Sayyid Ṣadr-ud-Dîn had a son, Sayyid Kafîl-ud-Dîn, the donor's grandfather, and a daughter Bint-ul-Fâtimah by his second wife, Jugnâ Bîbî, daughter of Sayyid Wâḥid 'Alî of Murshidâbâd. By his first wife Daulat-un-Nisâ Bîbî, he had no children. He died, fourteenth Ramaḍân, A.H. 121[illegible]=A.D. 1796, at the age of seventy-five. Sayyid Kafîl-ud-Dîn wasted his property. In his old age, then reduced to extreme poverty, he became a disciple of Shâh Nûr Muḥammad *Naicḥahband.* He married Zuleaydah Bîbî, daughter of Sayyid Muhammad of Huglî, and died in A.H. 1243=A.D. 1827, leaving a son, Sayyid Karîm-ud-Dîn Aḥmad. Karîm-ud-Dîn married Khayr-un-Nisâ, daughter of Muḥammad Sâjid Ṣiddîqî, and died in A.H. 1274=A.D. 1857, leaving three sons, Ṣadr-ud-Dîn Aḥmad, the donor, Sayyid Sirâj-ud-Dîn, Sayyid Ṣafî-ud-Dîn, and a daughter, named Ma 'Ṣûmah.

The donor was born in Bûhâr, A.H. 1259=A.D. 1843. He received his early education from Sayyid Izad Bakhsh. He spent most of his time in studying, particularly historical works. In his autobiography he speaks of a series of family misfortunes and troubles, and of having suffered imprisonment. He obtained release only after spending more than forty thousand rupees. He regained his former position in society, and served the government and the public in various capacities.

He was a good oriental scholar, and we owe to him the works Darb-ul-Masâlib and an edition of the Târîkh-i-Nasa'î. He is also reported to have written a reply to Shiblî Nu'mânî's al-Fârûq, which remains unpublished. A large number of the manuscripts of the Bûhâr Library contain notes from his hand, showing how attentively he had perused them.

How extensive the Bûhâr Library was at the time of the decease of Sayyid Ṣadr-ud-Dîn is not known. Much is understood to have been lost between that date and the assumption of charge by the donor about the middle of last century. It then consisted of only 100 manuscripts and some printed books. By 1905 it had grown by purchase, as well as by the addition of copies of manuscripts in other Indian libraries, to a collection of four hundred and sixty-six Arabic manuscripts, four hundred and eighty-three Persian manuscripts, one Turkish manuscript, and one Urdû manuscript, besides about nine hundred and forty Arabic, four hundred Persian, and one hundred and forty Urdû books, printed or lithographed. This growth was due entirely to the enthusiastic spirit of the donor.

It was the same spirit that dictated the wish that the Bûhâr Library should remain intact for the use of all succeeding generations of Arabic and Persian scholars. To secure this the donor presented the library to the Government of India under an agreement in 1904. In accordance with the agreement the Bûhâr Library, which is always to be so designated, is preserved in a separate room in Metcalfe Hall in Calcutta.

The donor died in 1905, less than a year after the presentation of the library to the Government of India.

ABDUL MUQTADIR

PHYSICAL OBSERVATIONS DURING A TOTAL SOLAR ECLIPSE

The occurrence of a total solar eclipse is a phenomenon of unusual interest to the astronomer. It affords him an opportunity of studying physical conditions in the sun on a scale which is not otherwise available. The memory of the last eclipse which we had, may be still fresh in the public mind. It occurred on the 29th May, 1919, and is celebrated as the occasion, on which Prof. Einstein's famous predictions about the deflection of light rays by the gravitation field of the sun was verified. Another total eclipse is coming shortly —September 21st, 1922—and this time the track of the moon's shadow will sweep across the Indian Ocean from the Maldive Islands to the West Coast of Australia passing close to Java. The chief item in the programme is to obtain fresh support for Einstein's theory by securing photographs of stars during the moments of totality.

Prof. Albrecht Einstein.

But the interest and importance of a total solar eclipse to the astronomer is older than Einstein by at least six decades. It began from the year 1859 when **Kirchoff** in Germany discovered spectrum analysis and placed in the hands of scientists a method which enabled them to study the chemical composition of not only terrestrial minerals, but also of such distant and unapproachable bodies as the sun and the stars.

To the unaided eye, the sun appears as an intensely bright circular disc. But about this disc (which is known in the astronomer's language as the **photo-sphere**) there is an atmosphere (known to the astronomer as the **chromosphere**) of glowing gases. We cannot see this atmosphere in broad daylight because it is lost in the general glare of the sun; for the same reason the stars and the planets are not visible in daytime. If somehow the bright disc could be veiled, the atmosphere would be visible to the naked eye.

Fortunately for us, this is done by the moon during a total solar eclipse. The moon comes just between the earth and the sun and sends out a conical shadow with a maximum diameter of 168 miles at the point where it meets the earth. The shadow sweeps across the surface of the earth with a minimum velocity of 1,000 miles per hour (almost the same as that of a cannon ball). To all persons lying within the track of the shadow, the disc of the sun becomes invisible for the maximum period of nine minutes (equal to $\frac{168}{1000}$ hours). This is known as the period of totality. It is well to bear in mind that 9 minutes is the greatest possible duration of totality. The actual period of totality may be anything from 9 minutes to nothing.

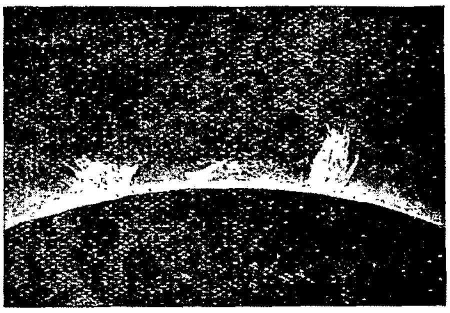
In ancient times when people had not yet learnt to calculate the date and time of a total solar eclipse in advance, and await the phenomena with stoic indifference, such occurrences often gave rise to much terror and superstition. This is scarcely to be wondered at, because people lying within the zone of totality suddenly find themselves plunged from bright sunshine into the deepest gloom. The sky-light is so much reduced that planets and big stars and sometimes stars of the third or the fourth magnitude become visible. The transition is extremely sudden and abrupt. (It is said that once in ancient times, two contending armies were caught up in a total solar eclipse and were so much smitten with fear that they broke action and fled away in panic.) In a few minutes, however, the gloom passes away, giving place to full sunshine.

Let us see how the astronomers use these precious few minutes. They are precious, not only on account of the extreme shortness of duration of totality, but also because of their rarity. 13 total eclipses occur in a period of 18 years 10⅓ days (usually known as the Chaldean Saros after the nation which discovered this period), yet only a minute fraction of the earth's surface is fortunate or unfortunate to receive them. It is calculated that if a total solar eclipse happens to occur once in a certain place, the probable time that will elapse, before it occurs there again, is 360 years. "Nine minutes once in 360 years" has certainly a claim to be called precious.

Before the discovery of spectroscopy, the programme was limited to the observation of the gradual progress of the moon across the sun's disc with the aid of a telescope (with the usual darkening devices). Four stages are distinguished. The moon just touches the disc of the sun **(first contact)**, then gradually creeps along the disc making the intersected crescent thinner and thinner ; this occupies about an hour. The cusp is gradually reduced to a line, and then vanishes abruptly. At this point, the moon just touches the disc on its inner side (**second contact**), and totality begins. The photo-sphere is completely veiled.

The maximum possible excess of the moon's disc over that of the sun is only 79″—so that within at most 4 minutes of second contact, the moon creeps along and touches the sun's disc at the point opposite to that of the second contact **(third contact)**, totality is now at an end. The moon continues to creep on, the thin crescent gradually waxes, till the two discs separate **(4th contact).** Eclipse is now at an end. For the astronomer, the period between the 2nd and 3rd contacts is most valuable.

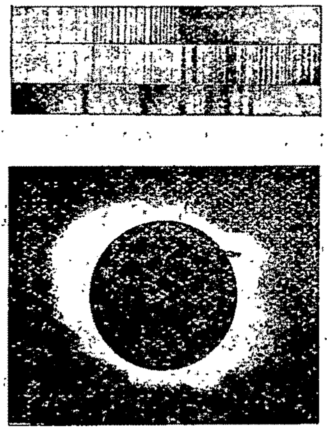
While carefully watching the progress of the eclipse through the telescope, it was observed by Airy and many other observers, that at the moment of second contact, when the cusp of the sun just disappeared, red columnar flames shot out across the field of vision. To these the name '**Protuberances**' or **Prominences** were given, but opinions were divided about **their physical** nature. Some said that they were parts of the moon, others said they were illusions, while a few held that they were huge jets of gas projected from the surface of the sun forming part of a general solar atmosphere.



A Typical Solar Prominence photographed during the total solar eclipse on May 29, 1900 (From Hale's Stellar Evolution).

The controversy was settled by the Italian Padre Sechhi, and by Warren de la Rue taking a series of photographs of the solar atmosphere during a total eclipse in 1860. These photographs established beyond doubt that the **prominences** formed part of the sun, and consisted of luminous masses emitting rays of great actinic power.

But the most imposing sight about the sun during the moments of totality is a magnificent luminous halo extending to great distances in free space. Very often, this luminous halo is topped with bright pointed arches, which give it the appearance of a crown. Hence the name "**Corona**" has been given to it. It seems to have been observed at a very early time, for it was known to Kepler and Galileo. Since 1851, innumerable photographs of the corona have been secured, showing great variety of form, and extension.



The lower figure represents a Photograph of the Solar Corona (from Hale's Stellar Evolution).

Near about the solar disc, the coronal light becomes more intense, and passes into a brilliant red ring of light, to which the name '**chromosphere**' has been given. The observation of the corona, the chromosphere, and the prominences formed the chief items in the older eclipse programmes. But laterly, methods were devised by means of which, the chromosphere and the prominences can be observed in full daylight.

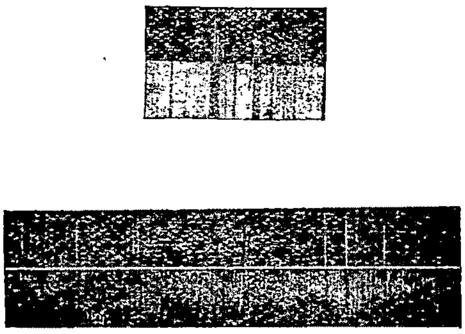
Application of the spectroscope to solar physics.—In 1859, Kirchoff announced to the world the news of his discovery of spectrum analysis. The effect of this discovery may be likened to the annexation of a fresh world of knowledge to the domain of human intellect. Newton had shown about 1680 that solar light consists of the seven colours of the rainbow. In 1813, Fraunhofer, then a humble spectacle-maker of Munich, surprised the scientific world by his announcement that the solar spectrum was not continuous, but was intersected in places by fine dark lines. These dark lines remained a perfect mystery for about forty years in spite of many efforts by scientific men to explain them (or rather explain them away). But Fraunhofer recognised that deep meaning might be hidden in them, measured and catalogued them for future use.

Continuous spectrum and Line spectrum.

The explanation, which we owe to Kirchoff, is as follows. A piece of white-hot iron or the glowing carbons of an arc emits a continuous spectrum. A gas on the other hand, emits a line spectrum. If a flame is sprinkled with the salt of some metal, it is well known that it is tinged with definite colours. Thus sodium salts tinges the flame yellow, strontium makes it red, copper makes it peacock-green. On spectroscopic examination, these colours are resolved into a number of fine bright lines; which are characteristic of the element present in the flame. Thus sodium emits two lines in the yellow, copper emits a number of lines in the blue, and every element has its own array of lines. It was observed, by Fraunhofer himself, that the yellow lines of sodium were identical with the dark lines D_1 and D_2 of the solar spectrum. Later observations showed that most of the Fraunhofer lines could be identified with the lines of elements known on the earth.

With the aid of new ideas on emission and absorption of radiant energy, these facts were woven by Kirchoff into a consistent theory of the Fraunhofer spectrum. This explanation is now a matter of common knowledge. The continuous spectrum comes from the highly condensed central nucleus (photosphere) of the sun, which emits like a solid body (this does not mean that the nucleus is solid—the more probable theory is that the nucleus consists of highly compressed gas). The light from the photosphere has to pass through a surrounding thinner atmosphere in which all terrestrial elements *e. g* iron, sodium, calcium, etc., are present in the state of vapour. These vapours act like filters, and rob the continuous spectrum of the light which they themselves can emit. Thus sodium vapour in the solar atmosphere absorbs the D_1 and D_2 light from the photospheric spectrum; they also emit the same light, but the intensity is very much smaller owing to the lower temperature of the atmosphere. The transmitted light which is made up of what remains of the photospheric light after absorption plus the light emitted by the vapours themselves is less intense than the original beam from the photosphere. Hence the beam appears dark in comparison.

Fraunhofer spectrum and reversal of lines.



The upper figure shows the Sodium lines in arc, and in the sun.
The lower figure shows the coincidence of iron lines in the arc with those in the Sun (Hale, Steller Evolution).

It is well to bear in mind that the darkness is only comparative. In reality, the dark lines are as intense as the lines of the flame or sometimes of the arc, as is proved from the fact, that with sufficient exposure, all parts of the photographic plate become dark. It naturally follows that if the photospheric light could be somehow cut off, and the solar atmosphere isolated, its spectrum would be found to consist of bright lines like that of a gas. *In place of each dark Fraunhofer line, we shall get a bright line, in other words, the spectrum of the solar atmosphere would be a complete reversal of the Fraunhofer spectrum.* This opportunity is afforded only during the moments of a total solar eclipse. It may be supposed that if we hold a sufficiently large disc before the telescope, so as to cover the photosphere completely, our object would be achieved. But this is not so. Besides getting light direct from the sun, we get light from all parts of the sky, which is simply sunlight scattered by the dust and air molecules of the atmosphere. The intensity of the sky-light is sufficient to mask the solar atmosphere completely. The bigger the disc the less intense will be the sky-light, but **it actually requires a disc as big as that of the moon to make the solar atmosphere at all visible.**

The importance of a total solar eclipse will now be quite evident, but the reader must not underestimate the difficulties. It is very difficult to catch the exact moment of totality. Then the moon shoots across the surface of the sun with tremendous velocity, covering 270 kms. of the solar surface per sec. **Hence if any spectroscopic study is to be made about the 100 kms. just next to the solar disc, it must be started and finished with $\frac{1}{3}$ of a second beginning from the instant of second contact.**

Spectra of Prominences.

At first astronomers concentrated their attention on the observations of the spectra of red prominences, which extend to great heights, and can be observed for a considerable length of time. Observations of the spectra of red prominences stood in the forefront of the expeditions to observe the total solar eclipse of 1868, which passed over India. Parties were organised by the French, English, and American astronomers, but success was reserved for the Frenchman **Jansen**. But before relating the account of this success, we must mention the appearance on the scene of a very remarkable personality—the late **Sir Norman Lockyer**—one of the greatest figures in solar physics, and one who was destined to influence the course of astrophysics for the next fifty years. Lockyer was, at this time, earning a small pittance as a humble clerk in the Admiralty. He was a man without regular University education, but what he lacked in routine education was made up by his energy ("tumultuous" is the adjective with which his biographer describes it) insight, and great powers of organisation, and above all his love of the subject. Lockyer hit upon the bold idea of photographing the spectrum of the red prominences in broad daylight, and with his own scanty means, set about the work in great earnest.

Lockyer recognised that the chief difficulty in his way was the sky-light, which, as explained before, completely makes all light from the solar atmosphere. The sky-light is simply solar light scattered by the terrestrial atmosphere, and its spectrum is the same as that of the sun. So a method had to be found by means of which the sky-light could be weakened, while the intensity of the line spectrum from the prominences would remain unaffected.

The way in which this was effected occurred independently and simultaneously to Lockyer and Jansen, under different circumstances. It is this—suppose we have a spectroscope consisting of simple prism, and observe with it the continuous spectrum of sky-light, and line spectrum of say a Vacuum tube. Suppose, the total length of the continuous spectrum between C and F is 3 cm. Now let us add another prism having the same dispersion. The length of the spectrum (C—F) will now be 6 cm. the intensity of the continuous spectrum will therefore be halved. The intensity of the individual lines of the line spectrum would however remain unaltered, for they are monochromatic. If we have *n* prisms, then neglecting the weakening in intensity due to absorption and reflection, the intensity of the continuous spectrum would be reduced *n*-times, that of the line spectrum would remain unchanged..

The perfection of the experimental method was, however, not the only difficulty which Lockyer had to encounter. The prominences were shown by Sechhi to be isolated masses, scattered irregularly over the solar disc.

Nobody know at which part of the sun's disc one had to look for them. So we need not wonder why it was after three years' labour that the difficulties of the work were overcome. In October, 1868, Lockyer succeeded in photographing the spectrum of the protuberances in broad daylight.

Indian Eclipse Expeditions of 1868.

But Lockyer had to share the honours jointly with Jansen. While engaged in the eclipse observations at Guntoor, it occurred to Jansen that the spectrum of the protuberances might be photographed in daylight, and the same method which was being perfected by Lockyer occurred to him independently. He was however more fortunate than Lockyer, for from his observations during the total eclipse, he had come to know the exact spot where he had to look for the prominences. Not only that, his observations showed that the most prominent line in the prominence spectrum was the C-line of hydrogen, not the sodium D-line, which had monopolised all the attention before this time. Jansen confirmed this on the next day by actual observation, and was so elated with success that he telegraphed to Paris "We have now total solar eclipse for the whole day." The observation was continued up to the 4th September; and then posted to France.

Jansen's observations were made at Guntoor in India. The news of his discovery reached Paris on the 26th October when it was read by Faye before the Paris Academy. By a mere accident, the news of Lockyer's discovery reached the Academy the same day. To commemorate this event, the French Government struck a medal containing, on one side, the effigies of the two astronomers, on the other side, the Sungod carried away as a captive in a chariot drawn by four horses and containing the inscription " Analyse des Protuberances Solaires, 18 Aout, 1868.

Shortly after Lockyer's discovery, Huggins showed that by placing the slit tangentially to the solar disc, and opening it rather wide on the side of the chromosphere, the whole protuberances could be observed. In 1892, Hale in America, Deslandres in France, and a little later Evershed in India discovered an instrument called the **spectroheliograph**, by means of which it is possible to photograph the prominences in broad daylight. Photographing the prominences is now a regular routine work at Kodaikanal, Mount Wilson, and many other solar observatories. Mr. Evershed of the Kodaikanal observatory has observed a huge number of prominences and published them in a book form.

In many respects, Lockyer went further than his contemporaries. He confirmed Sechhi's view that the protuberances were elevations from a continuous atmosphere surrounding the sun, for which he in conjunction with his friend Frankland suggested the name **chromosphere. (sea of colours)** He showed that the D-line of the protuberance spectrum was not identical with the sodium lines, but its wave-length was considerably shorter (5876 against 5890-96 of D_1 and D_2) He called it D_3. It is not represented in the Fraunhofer spectrum, and was ascribed by Lockyer to a new element still undiscovered on the earth. He christened this hypothetical element Helium, after Helios, the Greek name for the sun-god." Thirty years later, Helium was discovered by Ramsay in the Norwegian mineral Clevite.

Discovery of Helium in the Sun.

But the proof that the spectrum of the chromosphere would be the reversal of the Fraunhofer spectrum was not yet forthcoming. Instead of showing thousands of bright lines the spectrum of protuberances showed only a few bright lines (11 in all).[1] This discrepancy cleared itself in 1870.

Prof. Young of Princeton, was observing a total solar eclipse on Mt. Sherman. With the slit of his spectroscope tangential to the sun's limb, and perpendicular to the moon's advance, he was awaiting the moments of the second contact. " The thin solar crescent narrowed second by second, then "all at once, as suddenly as a bursting rocket shoots out its stars, the ordinary Fraunhofer lines previously visible were replaced by a serried array of bright lines on a dark background. This seemed a complete reversal of the familiar absorption-rays and the impression was also conveyed to Mr. Pye, a member of the same party." (The description is taken from Mrs. Clerke's Problems in Astrophysics).

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[1] In 1870, Lockyer showed that the spectra of protuberances showed hundreds of lines.

The spectrum of the chromosphere.

This flash-like reversal had been looked for, and been confirmed. But a photographic record could be taken only 26 years later in 1896, by Mr. Shackleton at Novaya Zembya, during the Arctic Eclipse of 9th August, 1896.

In this expedition, a prismatic camera was used. It is a simple form of spectrograph, without slit and collimating lens. The slit is unnecessary, because at the moment of totality, the source of light is the thin crescent-like part of the solar chromosphere intercepted by the moon's disc. By means of the prism, this thin crescent shaped source of light is drawn out into a series of monochromatic images. Some of these arcs are long, others are short. The employment of this apparatus in eclipse work is mainly due to the initiative of Lockyer. It is generally known as the **Flash spectrum**, on account of the flash-like rapidity with which it appears and disappears.

Flash spectrum.

A magnificent opportunity presented itself in the year 1898, Jan. 22, when there was a total solar eclipse passing over India. Photographs of the flash spectrum and the corona were secured by Lockyer at Viziadrug in the Bombay Presidency, by Evershed at Talni, and by Naegamvela.

Indian Eclipse Expeditions of 1898.

The full story of these expeditions is told by Lockyer himself in the pages of the Philosophical Transaction, Vol. 197, 1901, and by Evershed in the same journal. At Viziadrug totality began at 12 *h.* 45 *m.* 53 *s.* and lasted for 127 seconds.

Between 1870 and 1896, Lockyer had planned several expeditions, but owing to unforeseen accidents, all of them came to naught. The inclusion of eclipse observation in the Arctic expedition of Shackleton was due to Lockyer's initiative, but he was prevented from being personally present.

Many photographs of the flash spectrum were secured, one set with a six inch prismatic camera, the other set with a nine inch camera. Photographs of the corona were secured: and its spectrum was also observed, though not very satisfactorily.

The eclipse of 1898 was the first occasion in which, there was no mishap, the programme went like clockwork. The ice being once broken, all the subsequent total eclipses have been fully exploited by astronomers, English, American, Dutch, French and German. But anything like an account of these expeditions is quite out of the question.

All eclipse expeditions did not prove successful. Sometimes at the psychological moment, clouds gather in the field of view spoiling all labour and money. Sometimes, the occurrence of the eclipse causes disagreeable activity among the surrounding populace. One eclipse expedition to India is said to have been completely spoilt by some jungly tribes setting fire to forests at the commencement of the eclipse. In 1914, owing to the outbreak of the Great War, the British expedition to Crimea in south Russia had to beat a precipitate retreat, abandoning all the instruments, which were never recovered.

Up to 1919, the programme had not much varied. The items were—

(1) Precise observations of the times of four contacts; these observations determine with great accuracy the relative positions of the sun and the time at the moment, and serve as useful data in the theory of lunar motion.

(2) The search for a possible intramercurial planet.

Physical observations during a total solar eclipse.

Mercury is the innermost planet of the solar system, but accurate observation of Mercury does not follow the Newtonian law of Gravitation; the apse-line has a progressive motion of $540''$ per century, of which $43''$ cannot be accounted for by the law of gravitation. The observed perturbation was formerly supposed to be due to the presence of a hypothetical planet between the sun and mercury, and the name "Vulcan" was coined for it. If such a planet really exists, it may become visible during the moments of totality.

But "Vulcan" has never turned up. The Perihelion motion of Mercury is now explained completely by Einstein's theory of Generalized Relativity. So it seems doubtful if Vulcan at all exists.

(3) Photographic records of the form of the "Corona" and photometric measurement of the intensity of Coronal light.

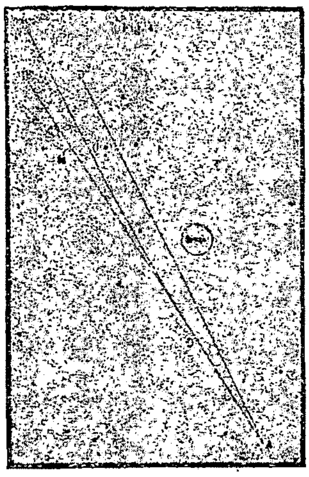
The Corona is an essentially "Eclipse Phenomena" as all attempts to photograph it during daytime has failed. At outer regions, it is only half as intense as the full moon.

(4) Certain meteorological observations, such as effects on the thermometer, the barometer, and the magnetic elements of the earth. (L. Bauer of the Carnegie Trust has specialised in this line.)

(5) Examination both visual and photographic of the spectra of the flash, the corona, and the prominences.

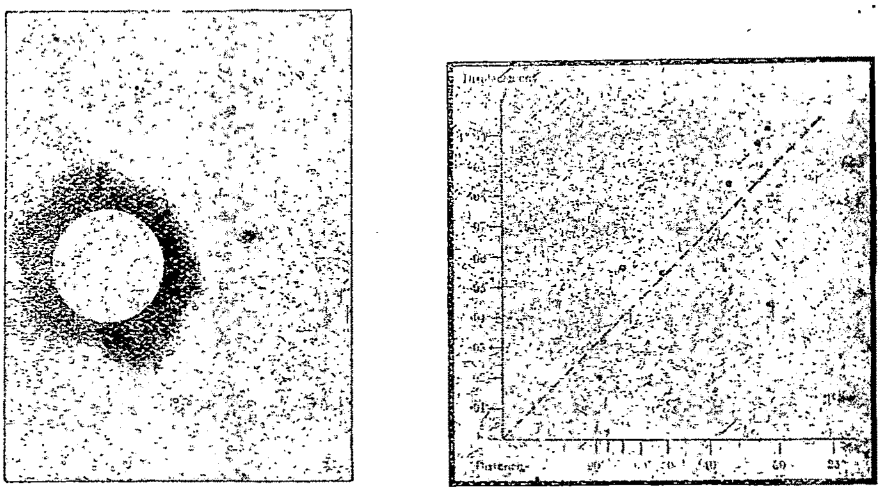
This item is by far the most important in an eclipse expedition.

Since 1919, another item has been added to the programme :—The verification of Einstein's prediction that rays of light would be deflected on passing close to the disc of the sun. The predicted deflection is 1·74 $\frac{r}{R}$, where "r" is the semi-diameter of the sun, R is the angular distance of the star from the centre of the sun.



(From Laue's Relativitäts prinzip) Diagram showing the defection of light-rays. The star at D is shifted D" (I) represents the sun.

Photographs of the field of stars about the sun are secured during the moments of totality. These photographs are compared with another set secured either before or after this event, when the sun is not in this region of the sky. The comparison reveals any displacement which star might have suffered owing to its rays having to pass close to the sun's disc during the moments of totality.



From Laue's Relativitäts prinzip. Photograph of the field of stars about the sun secured by the British Expedition at Sobral. The corona is also shown. The second figure shows the result diagrammatically,

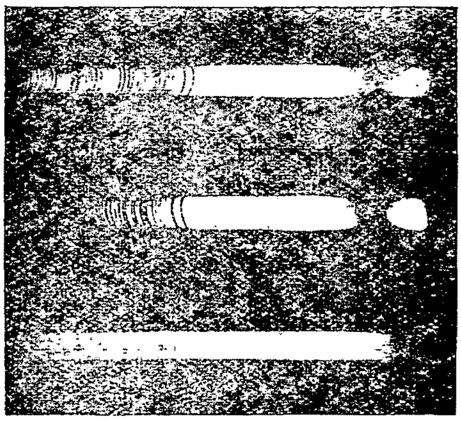
It is hardly necessary to add that the results of the British expedition of 1919 confirmed Einstein's predictions in a most brilliant manner. The coming eclipse is also said to present a very favourable opportunity, as the field about the sun contains a number of sufficiently bright stars. A method proposed by Prof. Lindemann of Oxford of securing photographs of stars in daytime in infra-red light was tried by Evershed, at Kodaikanal but did not yield any positive result.

Results of the spectroscopic examinations.

Interest in these observations has somewhat flagged of late owing to the sensational nature of Einstein's prediction, but this attitude is scarcely to be justified. The results which have accrued from these observations are highly interesting and present a number of problems still awaiting solution.

We have already remarked that Rowland measured about 20,000 dark lines in the solar spectrum in the region between 3000 A.U. to 7800 A.U. A number of these are due to absorption by the gases of the earth's atmosphere. About 6,000 have been identified with the lines of known elements. Altogether about 45 elements are known to exist in the sun.

The total number of lines recorded in a flash spectrum is not so great, owing to the limitations imposed on the power of instruments which can be carried to the eclipse station, and the short duration of the eclipse. Evershed counted about 1,500 lines on his plates, Mitchell in America, using instruments of higher power during the total eclipse of 1905, increased the number to 2500.

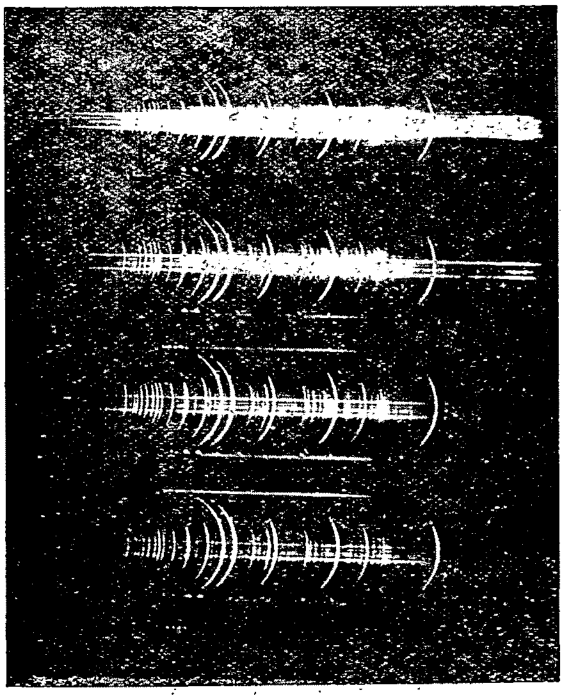


(From an article in the Phil. Trans., Vol. 197, by Evershed.)

The uppermost figure is the spectrum of the thin solar cusp just before totality. The middle one represents the spectrum of an artificial cusp on an ordinary day.

Peculiarities of the Flash Spectrum.

From these observations, it appears that the flash spectrum is mainly a reversal of the Fraunhofer spectrum,—that is to say,—corresponding to every dark line of moderate intensity in the Fraunhofer spectrum, there is a bright line in the flash spectrum. But there are a lot of important differences. We have already alluded to the discovery of helium in the sun. A scrutiny of the Fraunhofer spectrum reveals not the slightest trace of a single helium line. On the other hand, more than 15 or 20 helium lines occur in the flash spectrum and some of them, *e.g.*, the D_3 line—rival the lines of hydrogen in brilliancy. Helium is certainly present in the sun, but why it fails at all to appear in the Fraunhofer spectrum is still wrapped up in mystery.



Flash Spectrum.

(From an article by Lockyer in the Phil. Trans., Vol. 197.)

The longest arcs are due to calcium lines H and K. The shorter arcs to the left of H and K are the ultra-violet lines of hydrogen. They are not present in the Fraunhofer spectrum.

A similar behaviour is shown by Hydrogen. Hngeoyrd gives four lines in the visible spectrum, the red line $\lambda = 6563$, corresponding to the C-line of Fraunhofer; the green line

$\lambda = 4861$, the F-line of Fraunhofer, the blue line $\lambda = 4340$, f of Fraunhofer, the violet line $\lambda = 4101{\cdot}8$, the h of Fraunhofer. These four lines are amongst the strongest in the Fraunhofer spectrum. About 1885, Balmer of Basle showed that the frequency 'ν' of these lines are represented with great accuracy by the simple formula

$$\nu = \frac{1}{\lambda} = N\left[\frac{1}{2^2} - \frac{1}{m^2}\right],\ m = 3, 4, 5 \text{ and } 6.$$

$m = 3$ represent the red line, $m = 5$ the green line, etc.

The extreme simplicity of the formula suggests that a deep meaning is hidden in this expression. In fact, in recent years, this formula has proved to be one of the main keys to the problem of atomic structure.

Hydrogen in the Flash.

The formula shows that the hydrogen series ought not to stop at H_δ (the 4th line of the above group), but ought to extend further in the ultraviolet, giving a large number of lines in serial order and ending at $\lambda = 3645$. The Fraunhofer spectrum shows indeed a line corresponding to $m = 7$, but most careful scrutiny fails to reveal any other lines of the series in the Fraunhofer spectrum. A number of other lines were subsequently discovered in the spectrum of the star Sirius,[1] and in the laboratory, but none in the sun.

This mystery cleared itself in the eclipse expedition of 1898. Evershed found that 29 lines corresponding to the Balmer formula are present in the flash spectrum. Mitchell later on increased the number to 35. But it is not yet clear why only 5 of them are present in the Fraunhofer spectrum.

If the reader looks carefully on the adjoining figure he will find two very big arcs, denoted by the letters H and K. They are by far the longest arcs in the flash, greatly exceeding the hydrogen arcs in length and intensity. These two arcs correspond to the H and K bands of Fraunhofer, which are the strongest absorption lines in the solar spectrum. It may be mentioned here that from the length of the arc, it is quite easy to deduce the height of the corresponding element in the solar atmosphere. The longer the arc, the greater is the height reached by the element.

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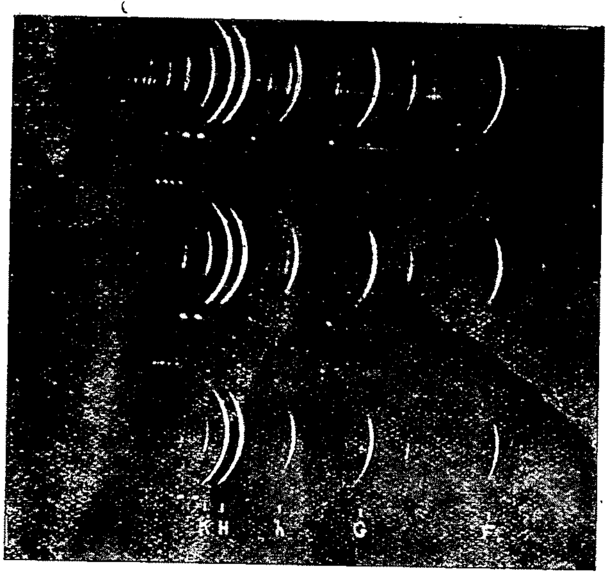
[1] Refer to the upper figure on page 509. The top most spectrum is that of the star Sirius. More than eight lines of hydrogen are shown.



Photograph of the Flash Spectrum secured on Jan. 22, 1898, at Viziadrug in the Bombay Presidency by the Lockyer Expedition (from Phil. Trans. Vol. 197). The H-K arcs are due to radiant calcium, F. G. h. are due to radiant hydrogen.

These considerations show that the lines H and K occur in the highest layers of the sun. To quote exact figures, they reach the height of 14,000 km. while hydrogen reaches the height of 8,000 km. only.

The earlier astronomers, Huggins, Young and others, at first believed that the H,K lines were due to some element lighter than hydrogen, "**some subtle form of hydrogen.**" But laboratory experiments soon dispelled this illusion. It was found that the twin lines are due to Calcium!

Levity of Calcium in the Solar Atmosphere.

Here is a strange enigma, a perfect riddle to astronomers. If we suppose that gravitation is the only force in the sun, it ought to act 40 times more strongly on a calcium atom than on an H-atom. Hydrogen would reach the highest levels, and then would come the other elements in order of their atomic weight.

But this expectation is apparently most flagrantly violated in the atmosphere of the sun. Then again gravitation is 28 times stronger on the surface of the sun, hence it ought to have practically no atmosphere. A closer scrutiny brings out many other flagrant discrepancies from the physical laws as known on the earth.

Quite a crop of theories were introduced to explain these facts. Many astronomers were of opinion that there is a **force of 'levity'** in the sun, which largely neutralises the pull due to gravity. This force of levity is sometimes supposed to be due to electrical forces, sometimes to the pressure of light, sometimes to the action of convection currents. But no attempt was ever made to explain why the force of levity should act on calcium alone (and a number of other elements).

Mention ought to be made here of an ingenious theory of Prof. Julius which tries to explain away the whole set of eclipse phenomena—the chromosphere, the flash spectrum, the corona—as mere " optical illusions." The theory explains some of the general features quite well, but breaks down entirely in the treatment of details.

The first step in the elucidation of these problems was taken by Lockyer. He showed that the spectra of an element varies with the stimulus sent through the element. One set of lines come out distinctly under low stimulus (such as the flame and the arc). But if the stimulus be gradually increased these set do not so much gain in intensity; but another set begins to appear, and rapidly gain in intensity. A stage can be reached when the first set is entirely suppressed, and the second set alone remains.

The first set of lines (low stimulus lines) are generally known as arc lines; to the second set (high stimulus lines) Lockyer gave the name 'enhanced lines,' or 'spark lines.'

Lockyer discovered the remarkable fact that the high level chromospheric lines are invariably 'enhanced lines of elements' *viz.*, of Ca, Sr, Ti, Fe, Mn and Sc. The low stimulus group always occur at a lower level. To take one example, the H and K are the enhanced lines of Calcium. The line which is strongest at low temperature ('*g*' of Fraunhofer, $\lambda = 4227$) is represented by a rather short arc in the chromosphere, corresponding to a level of 4,000-5,000 kilometres. Similar behaviour is shown by the lines of other elements which are strongly represented in the solar spectrum. Their low stimulus lines fail to reach any great heights; the enhanced lines, on the contrary, reach very high levels in the solar atmosphere. From these evidences, Lockyer drew the conclusion that the chromosphere is the seat of much higher stimulus than the photosphere.

Further development of Lockyer's idea cannot be followed without a brief digression on the spectra of stars. With the aid of naked eye, it is possible to distinguish 4 classes of stars, white, yellow, yellow-red, deep-red. These stars are in the order of descending temperature, deep-red stars have the lowest temperature, white stars have the highest temperature. Secchi showed that the spectra of stars corroborate the classification based on visual observations. The spectra of the star of a particular colour is almost typical of that class.

Lockyer's studies on the Salar stellar spectra.[1]

Lockyer worked out the transition stages very fully, and showed that the spectra of red and yellow-red stars are practically made up of low stimulus lines. The enhanced lines are only faintly present. But in the spectra of higher classes, the low stimulus lines become fainter, while the enhanced lines begin to gain in intensity. The high temperature stars practically show only ' enhanced lines.'

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[1] Refer to the top figure on page 519. The three spectra are respectively those of white, yellow and red stars.

These facts led Lockyer to a number of hypotheses. He assumed that the spark was equivalent to a high temperature. Led by the belief that white stars represent an earlier stage in the process of evolution, he thought that elements were present there in a more primitive **(or proto)** condition. The enhanced lines are due to the " **protoforms** of the elements." Thus the '*g*' line is due to ordinary calcium, while the 'H' and 'K' are due to ' **Proto calcium.**'

But the very idea that the atom, the indivisible unit of matter can be in any way further subdivided was regarded as a sort of ' heresy ' in those days. In astronomical circles, the distrust with which Lockyer's views were regarded was enhanced by his attempted explanation of the spectra of the solar atmosphere. As we remarked before, the spectrum of the high level chromosphere is practically made up of "enhanced lines" ; in other words, the spectrum is the same as that of a star of higher surface temperature. Lockyer therefore believed that the temperature of the chromosphere was higher than that of the disc. In other words, the temperature increases as we go outwards in the sun.

This is a rather startling conclusion and common sense never allows us to accept such a hypothesis. In the earth, to take a concrete example, the surface temperature is something like 300° (Kelvin or Absolute scale), but this decreases at the rate of 5° per kilometre as we go higher up in the atmosphere. This decrease continues for 10 to 12 kms. the temperature falls about 240°K and then it reaches an almost steady value; the temperature being maintained by exchange of radiant energy. There are very good reasons to believe that the same state of affairs holds also in the sun. The surface temperature has been determined to be about 7000° K. This decreases at a very rapid rate, but assumes a rather steady value of 5500° K at the higher levels. This view is apparently inconsistent with Lockyer's idea. Still, the fact that the chromosphere is the seat of higher stimulus has to be explained.

A theory to explain these facts was given by the present writer about a year and a half ago, which has met with general acceptance. But an account of this theory will be out of place here.

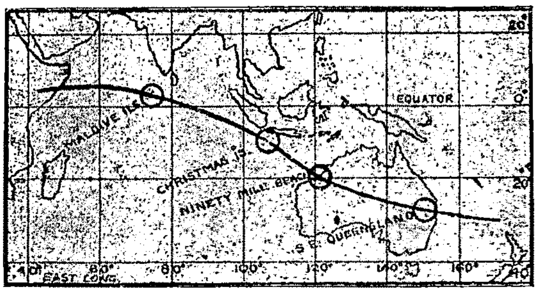
The coronal spectrum. The spectrum of the corona is one of the most puzzling riddles of solar physics. The spectrum shows a number of lines which are not coincident with any Fraunhofer or flash line, or with the line of any known element. The best known line is λ=5303, which was in early times confused with a line of iron having the wave length of λ =5316. This line and its associate line are ascribed to a hypothetical element called "**coronium.**" But "coronium" has not yet made its appearance on the earth.

In the light of modern theories of atomic structure, it does not seem probable that "coronium" will turn out to be a newcomer in Mendelieff's family of elements, but will prove to be, like Lockyer's Protocalcium or Protovanadium, only a modified form of some known element.

The Coming Tctal Solar Eclipse.

It will be seen that beginning with the memorable eclipse of 1868, most of the important eclipse observations were made in India. The eclipse of Sept. 21, 1922, will however pass south of India. The adjoining fig. shows the track of the eclipse. Beginning from the east coast of Africa, it will sweep across the Indian Ocean. The original plan was to have three eclipse stations, one at the Maldive Islands, the second at the Christmas Islands, south of Java, the last on the west coast of Australia. The Maldive project has subsequently been given up. A British party and a joint Dutch and German party will camp at the Christmas Islands. Here the duration will be 3′ 40″ but the station is not exactly at the centre of the moon's shadow, but fifty miles south of it. The sun will be nearly at the zenith, and there are good prospects of fair weather. The British party is composed of Mr. Spencer Jones,

M. Melotte and observers from the Greenwich observatory, while the Dutch party will be under the leadership of J. G. Voute, Director of Meteorological Survey in the Dutch Indies. Germany will be represented by Freundlich, Kohlschütteer, and probably Einstein.



(From an article in the Nature, Dec. 29, 1921 by Dr. W. J. S. Lockyer). Track of the moon's shadow during the coming total solar eclipse, Sept. 21, 1922. The small circles denote the site of the eclipse stations. The Maldive project has been given up.

In Australia, probably both the west and east coasts will be occupied, by an American party under Prof. Campbell of the Lick Observatory, and an English party in which Australia will be represented. Mr. Evershed from India will probably encamp somewhere in the west coast of Australia. Here the duration will be 5′ 18″ and the sun will be nearly 60° high. The weather prospects are said to be favourable.

A question which is asked in this country—what is the good of all this fuss—may be answered here. The sun is the source of all life on this earth. It controls the weather, the winds, the rainfall, the currents in the ocean. All sources of power and energy are to be traced ultimately to the sun. If the physics of the sun were accurately known, it is only a question of time that meteorological problems, vital to mankind would find their complete solution. Wind, rainfall, changes of weather would be then calculated in advance like the motion of planets. It seems that the attainments of this goal is only a question of time. The journey is long, the goal is not yet in sight, but if the scientific activity of mankind be allowed to continue, probably some day it will be reached.

MEGHNAD SAHA.

VENGEANCE IS MINE

BOOK II—CHAPTER V

"WHEN WE FALL OUT WITH THOSE WE LOVE"

The tropical sun matures quickly our Indian humanity. Human hearts and human heads are fully developed here earlier than in other lands. At the age when the seriousness of life dawns upon our minds, the youth of other lands have hardly left off their toys. When the Western lad is still a playful youngster free from care, we get strength to undertake the heavy responsibilities of life. The atmosphere of the tropics favours early blossoming, early flowering and—early decay. The thoughts and ideals of Jagat and Tanman would have done credit to a grown up person. They had begun to glimpse in their hearts the boundless fascinating treasures of love, they saw unfolding before their eyes the inscrutaule secrets of life. Slowly but surely some mysterious power was dragging them along a path—they knew not whither.

The day after the excursion Harilal, Madhavdas and Jagat began to discuss the modern educated young man and Mr. Ramanlal was putting in his opinions and comments about learning in general. Shortly afterwards Tanman arrived and she too came in with her remarks from time to time. The discussion turned upon how the "educated" Indian treats his wife. Just then a servant came in with a message and the two elders went out.

"You educated people are all cowards," continued Raman in the pride of his own ignorance, "if you cannot teach your own wife, what else are you fit for?"

"But why should we teach?" answered Jagat, "the aim of one's life is not to be a wife-trainer. We have got to start many a wonderful enterprise, we have got to pour out the best in our lives for the sake of our ideals; so why should we burden ourselves with this extra work ? One could teach a whole village with effort required to educate a dull woman. Why are not parents as anxious to educate their girls as they are to mary them ? Do they expect to gain all the advantages without any effort ? "

"But why blame parents for marrying them ? " Tanman asked with comic seriousness. "Is it not the Joshi Maharaj[1] that brings about our conjugal bliss ? " They all burst out laughing at this sally.

"What I want to say is—" began Raman, but a servant came in and said, "Sir, your father wants you." It was a nice chance for Raman to get out of the argument, so he left his remarks unsaid. Tanman took up the argument. "Do you mean to say that if men tried to educate their wives properly they could do nothing great ? "

"No, I don't mean that. But an uneducated wife is a dead weight round her husband's neck."

"But to tell you the truth," said Tanman, giving an unexpected twist to the argument, "how could any educated woman like to marry ? We had a neighbour in Bombay who daily used to beat his wife. But she, poor dear, was very wise and kept quiet. As if we were created only to bear your blows, eh ?" She turned up her delicate nose at this question, but her eyes were dancing with affection and mischief.

"Who said so ? And certainly not a girl like you," replied Jagat with a smile.

"But, Kishor, what sort of a wife would *you* like to have ? " asked Tanman giving the matter a twist in another direction.

"Very nice indeed ? How did *this* question arise ? But if I have a wife she should be my comrade and equal in all my efforts, in all my hopes and in all my aspirations."

Tanman pursed up her full lips and whistled thoughtfully.

"But such a wife could not tolerate you for a minute. If she is to be your comrade and equal in everything she could not permit any of these airs. No wise woman could put up with you for a moment; understand!" cried Tanman mischievously.

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[1] The family astrologer.

"Why are you so angry with me to-day?"

"I am not angry. But don't talk of comradeship and equality. Just look at your airs and your pride. Yesterday while coming back you flew into a rage with poor Mani for nothing. If you treated me like this for much a trifle I would not even look at you again."

The servant came in to call them.

"Yes we are coming directly," cried Jagat getting up.—"Tanman, if I marry the girl I love, the chief aim of my life would be to please her always;"—his voice, his words were vibrating with wondrous emotion.

"Very well, we shall see. But before you find her, just improve that nasty temper of yours," said Tanman and threw her handkerchief rolled up in a ball at Jagat. They communed more with unspoken than with spoken words.

This pair was drifting out—was being carried away—upon the ocean of love. They had no thought of the other shore whither they were bound. They had taken the plunge trusting for the moment the unknown future. They dived and laughed and played in its delightful waves—and the days passed. To their unsophisticated hearts this was the only natural expression for the surging life within. And Harilal had no eyes to see.

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The three were sitting down—Jagat, Tanman and Mani. There were not many people there. At their feet were the murmuring waves of the Arabian Sea. The flaming disc of the setting sun seemed as if poised motionless for a moment before plunging into the waves—and night. The breeze was softly blowing—it was grateful to the touch as if caressing these two children of nature. The two were talking quietly and Mani was picking up shells.

In their talk much was left unsaid. They thought neither of the future nor of the past. To them it was always the joy of the present—of the gorgeous nature around them, of the union of loving hearts. They used to spend thus hours on the sea-shore or on the bench in the mango-grove. Sometimes Tanman teased Jagat and quarrelled with him ; and afterwards the sweet moments rushed swiftly by in arranging the terms of peace.

They most often talked of the new world around, the renaissance of their country and of Jagat's high ideals and hopes. Their comradeship was on a higher plane than the ordinary, there was nothing of the earth in it. Such comradeship alone brings forth the highest expression of a man's life.

Jagat was stretched upon the sand. A fisher boy came running closely pursued by another. The first rushed into the oncoming waves and the second also ran after him. In his eagerness to escape, the first boy again rushed out of the water near where Jagat's legs had been stretched and scattered the spray all around. Then he tripped against Jagat's boots and fell headlong upon the sand. The water and the wet sand made a sad mess of Jagat's immaculate trousers; he lost his temper completely. He thrashed the fallen child with his cane. Tanman's blood was up.

"Jagat, what is this ? What are you doing to this child ?"

Jagat was by no means soft-tempered. His blood boiled on the slightest pretext and now he had lost all control.

"What do you mean ! This rascal—" and he again raised the cane.

"Stop it. Are'nt you ashamed of yourself ? You are about four times the size of this child, but that gives you no right to kill him."

Jagat's temper did not cool ; on the contrary at Tanman's words all the pent up rage blazed out. He could not brook any one's authority or interference.

"Who asks your advice ? How does it concern you ?" he cried in rage with his face crimson. Tanman enjoyed very much seeing Jagat in a rage, she had grown into the habit of teasing him daily.

"Concern me! Yesterday you were a great champion of liberty and equality," cried Tanman superciliouly curling her lip—like unto the bow of Kamadeva[1]—"and to-day you have nearly killed this poor child."

As one was getting hotter every moment, the other kept cool and with sharp words pierced him to the quick. In a couple of minutes all the pleasure had disappeared as they silently walked back to their cottages. Jagat's rage was still smouldering, Tanman was unhappy at his injustice, at this exhibition of his rage, and at her failure in making peace with him; poor Mani was dumb with astonishment.

"Well, Tanman, why are you so gloomy to-day?"

"Oh, nothing, Gulab-ba,[2] nothing at all." Gulab-ba, Tanman's step-mother, did not ask any more. But Tanman was more pained at heart than she cared show. Why did she chide Jagat? At first she had hoped that he would give in as usual and make peace, but this had been something quite unexpected. How to make peace again? Will Jagat be placated? When will they two meet again? Tanman felt all the weight of her crushing misfortune. In her innocent, happy, free, young life this was her first grief, her first stroke of ill-fortune. How could she go to him now? Would not Jagat come to her with the peace-offering? She was thinking in this strain when Harilal came home. They had their dinner and prepared to retire. Harilal was very fond of music so a fine singer had been invited from Surat. He was to sing at their evening party the next day. And as the ladies had to get up early to make all the preparations, they retired early.

But how could Tanman sleep? She thought of many things. She could not do without Jagat. But what a vile temper he had? No, no, she herself was wicked. Why did she tease him? If she had not done so they would have parted friends as usual. How much affection had Jagat shown for her, and how had he tried to overcome the defects of his temper in order to please her. She had grown big, but still she was only foolish big baby. What if Jagat refused to be placated? And what if, perchance,—he went away? Merciful God! What would she do then? Tanman's tears flowed fast at the mere thought. "But no," she murmured, "I will go to him the first thing to-morrow morning and will make friends again. Oh, Kishor darling, why are you so hard?"

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[1] The God of Love.

[2] *Ba* means "mother."

At last about dawn sleep, or rather a half-dreaming, half-waking state, came to her relief. In all her dreams there was Jagat;—the end of all grief. In one Jagat was drowned, in another she was cast away somewhere, in a third they had quarrelled. At last with daylight she got up, came down and sat on the swing on the verandah. The rising sun somewhat lessened her despair. While she was hesitating whether she should go to him now or later, Gulab-ba called her in for the preparations. With firm set lips and hardened heart she set about preparing for the party.

Neither was Jagat any happier that night. With daylight, however, he also grew less despondent and felt more his wounded self-esteem. Every day Tanman used to tease him and he had to beg for pardon. Why should she not beg of him this once? But again he thought it wiser to forgive and forget and decided to speak to her if she should come to him. An hour passed, two hours passed: he felt on the one hand grief and on the other anger at Tanman's continued absence. Why was she not coming? Had she, he wondered, fallen ill? No, of course not. "She means to have her way and I too shall sit tight. She may come if she wants to." He found no way out of his sore perplexity. It was noon, but still no Tanman. He then wanted to go out to her, but Raman detained him. Each unexpected delay vexed him further.

About two o'clock he saw at a distance Tanman coming to the cottage calling out to Mani. Jagat put on all the airs of wounded dignity, but he could see that there was no life that day in Tanman's usually radiant face. She came in, called Mani to her and told her something. He and she, both wished to speak—even tried to speak ;—but both clung obstinately to their prestige and pride. Gulab-ba sent a servant to fetch Tanman and she went back.

Jagat was very uneasy in the evening. Owing to his want of sleep and his anxiety he has got a headache. He debated within himself whether he should attend the music party or not. Ultimately he decided to go. Tanman was indeed tired of him and would now forget all her old affection. He decided under these circumstances to go to Harilal's place and satisfy himself by gazing at her dear face. Several ladies were sitting there and Tanman was moving about among them, her fine form draped in pure white. From the bamboo screen he could partially see her graceful outline and filled in the details with the help of his memory.

The music had begun, but he could not endure for long seeing, others enjoying whilst he was sitting amid the ruins of his hopes. His head ached more, so he quietly got up, went downstairs and resolved to go home. He was so agitated that he would have burst into tears if any one had but accosted him. He came down to the verandah: there was no one there,—outside all was dark. He stood against the railings resting his head upon his hand and gazed out at the distant sea waves. From above came the sound of music; but it was full of sorrow, the *sarangi* was as it were lamenting. He scarce knew what to do; he felt that he would die unless he was reconciled to Tanman.

From behind he heard a voice calling as in a dream:

"Kishor."

Jagat started, drew himself up and turned round. With pale face and brimming eyes Tanman was standing there. She was trembling. She seemed not Tanman, but the phantom of a dream ;—in the quiet dim light of the stars she seemed like a nymph of heaven come down. Jagat hardly trusted his senses and stood dumb.

With her arms outstretched and her face full of grief she cried: "Kishor dearest, won't you forgive me?" Her voice was tender and full of grief and tense with suppressed emotions.

Jagat's heart nearly burst. A moment ago he had scarce felt a pulse-beat but now he felt the blood surging through his veins. Waves of pleasure were rolling up to his aching head. Each nerve responded to the ecstatic joy. He did not know whether he stood upon the earth. He could but articulate with great difficulty—"Tanman, darling!"

This was the moment for Mother Nature herself. Almost unconsciously he stretched out his arms—he felt them stretching out.

The next moment the two full hearts were locked together. They had met and that sweet moment was compensation enough for ages of pain. It was the divine salve for the unspeakable sufferings of last night. They stopped not to consider if what they did was correct and proper. They followed blindly where Nature led them. Where the heart is pure and without sin, obedience rendered to Her commands of love and trust is also pure and without sin.

Tanman's eyes were full of tears but her face was lit up with loving smiles.

Jagat asked with a smile: "Are not you going upstairs to hear the music?"

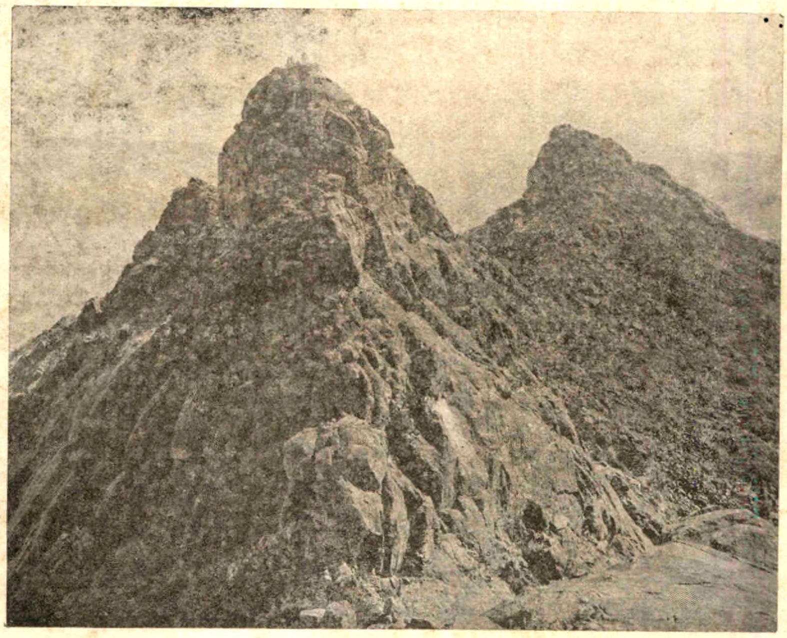
"Go upstairs! Why, is there no music down here?" asked Tanman with mock gravity.

The strains of the divine *Vina* of Creation were resounding through their hearts, what use had they for earthly music?

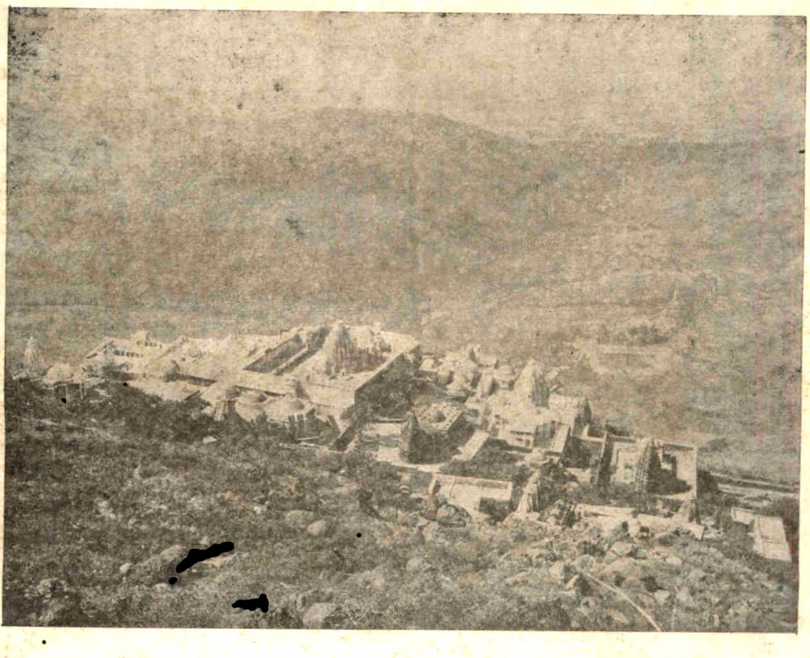
(*To be continued*)

KANAIYALAL M. MUNSHI

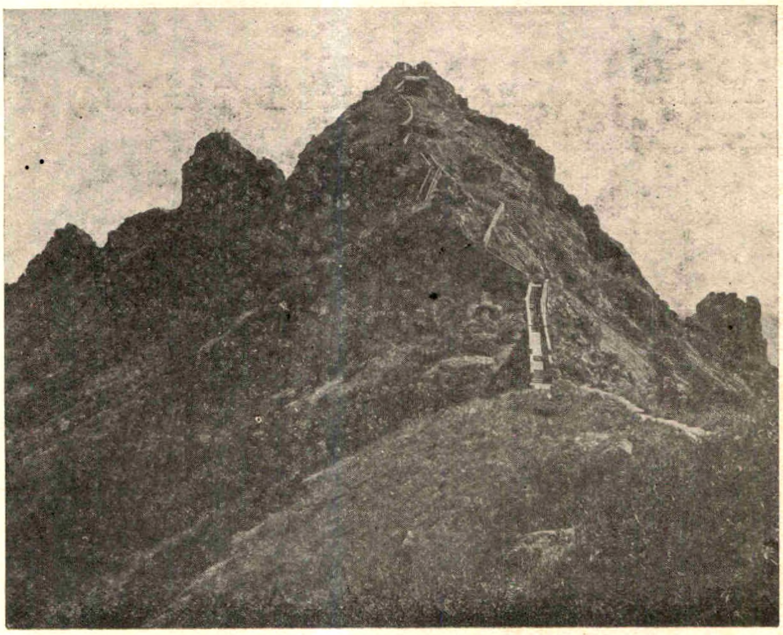
IN AND AROUND JUNAGADH (BOMBAY)



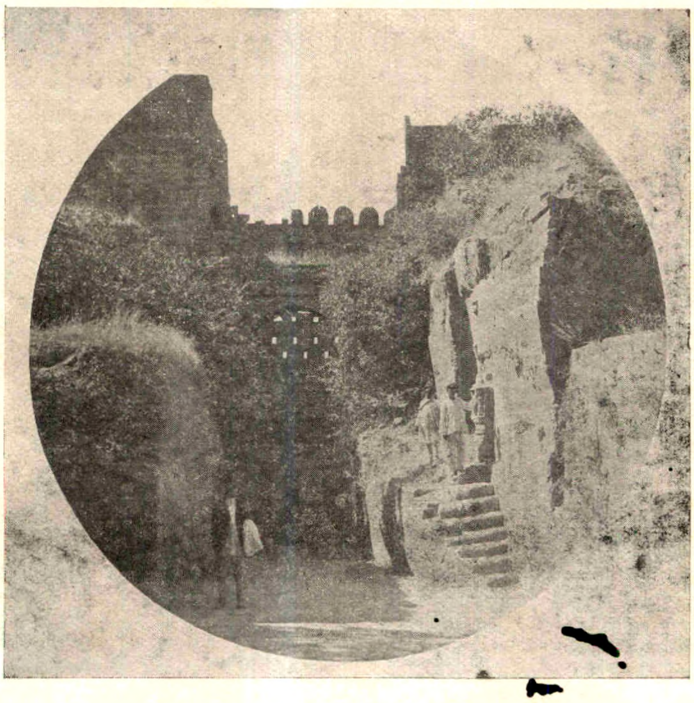
Gorakhnath Peak on Mount Girnar, Junagadh



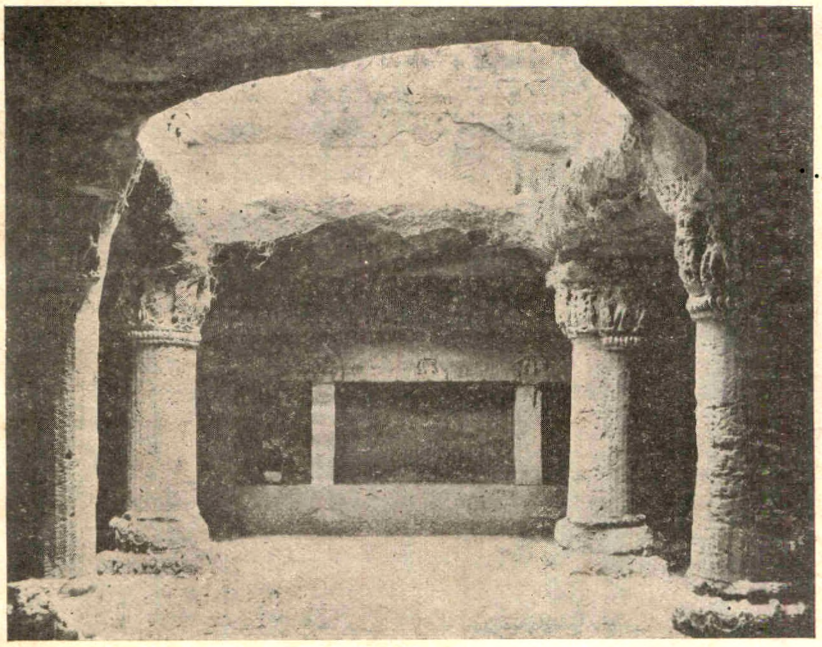
General View of Jaina Temples on Mount Girnar, Junagadh



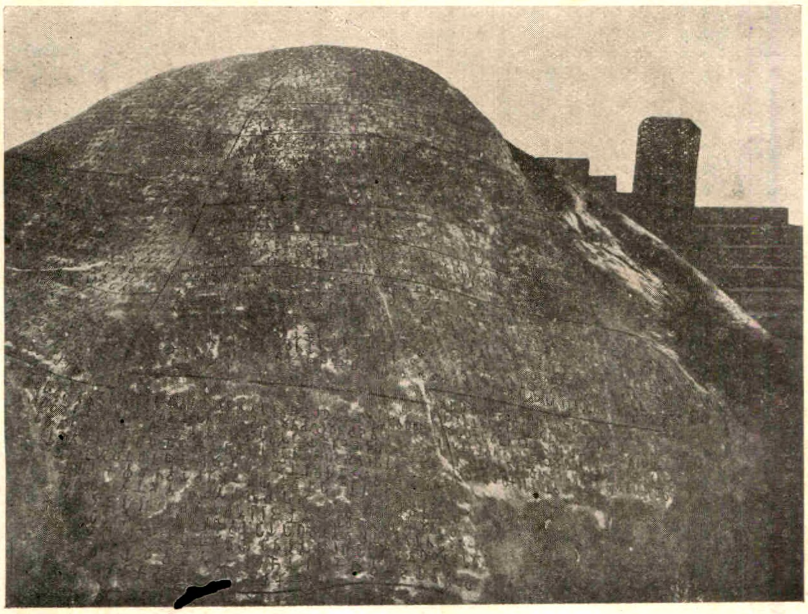
Guru Datatreya Peak on Mount Girnar, Junagadh



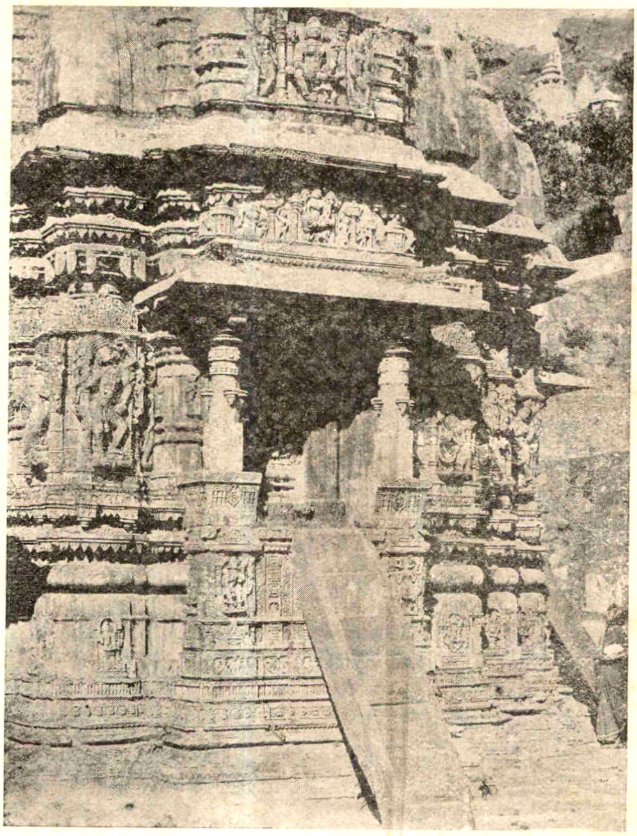
Entrance Archway to Uparkot, Junagadh



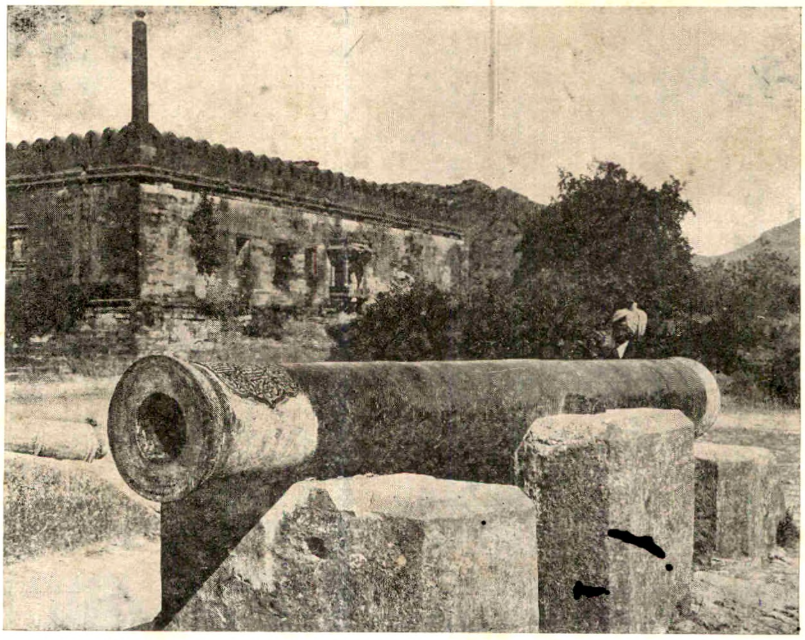
Khapra Kodia Cave on Uparkot, Junagadh



Asoka Inscription Rock, Junagadh



Vastupala's Temple on Mount Girnar, Junagadh



THE HASHISH SMOKER[1]

At midnight when the planets stream
Across the purple desert skies,
I barter for a hempen dream,
The promised joys of Paradise.
A fairer Eden lures me through
The smoke-wreaths of a Hashish Bowl,
And there—I laughing turn to view
That lost Nirvana of my soul.

The poppy spells till dawn unfold
Strange forms that charm—sweet forms that please;
Fresh sprung from beauty's rarest mould—
Earth holds no beauty rare as these.
Ah, nightly, as the fumes upcurl
Bright eyes upon my dreaming shine;
There, is many a slim brown girl,
Whose tinted lips are raised to mine.

I reck not if in Blessed Glades
A Houri's face be fair to see;
But seek the smiles of other maids
To those a Faith once pledged to me,
And by a stream, whose waves reflect
Many a moon and shooting star,
Through scented groves all flower bedecked
I pass nor care—what gods there are.

Where palace lamps burn dim and low,
The carven gates lie open wide;
I pace beneath their jewelled glow
A fairy princess by my side—

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[1] Reprinted from "Business" May, 1920. Published by the Tata Publicity Co., Ltd.

And drink the wine she pours for me
Nor ever wake to count the cost—
For these I pledged eternity,
Nor losing heaven deemed it lost.

Asleep to ill, from eve till morn
I rule a king—in lands divine;
A sinner men by daylight scorn—
Nor fear the Fate men say is mine.
For when Life's Moon is on the wane
And Death has claimed his wonted toll,
I'll dream the old, sweet dreams again
In Hades with—my Hashish Bowl.

MIRIEM KHUNDKAR

From Far and Near

Oxford and Cambridge.

Mr. Fisher's University Bill, introduced in mail week in the House of Commons, providing for the formation of bodies to be known as "The University of Oxford Commissioners" and "the University of Cambridge Commissioners," respectively, is the outcome of the activities of the Royal Commission that enquired recently into the applications made by the two Universities for financial assistance from the State. The Commissions are not to form permanent standing bodies, and it is proposed that their activities should terminate at the latest by the end of 1926. This will be appreciated by all who desire the preservation of the autonomy of the Universities. The Commissioners will be entrusted with the application of the proposed State grant, and the whole life of the Universities and of the Colleges will come under their review. They are vested with wide powers for this purpose, and the only notable limitation imposed is that no statute can be made for altering a trust, unless 50 years have passed since the date on which the instrument creating the trust came into operation. Lord Chelmsford, it is interesting to see, will be one of the Oxford Commissioners. The Cambridge Commission will have the power to consider the question of admission of women to the University, it being one of the recommendations of the Cambridge Committee of the Royal Commission that women should be admitted to equal membership with men —*New India.*

Royal College of Art.

The distribution of diplomas at the Royal College of Art gave an opportunity to the President of the Board of Education to escape for a moment from the lowly plains of Parliamentary controversy to the elevated regions of art. Mr. Fisher's description of the College as a great central art school which attracted scholars from all parts of the Empire was a true one, for Professor Rothenstein, the Principal, mentioned that he had under his care students from South Africa, Egypt, India and Ceylon, and, further, that the College was sending out three men to New Zealand to take direction of the art education in that country.

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Mr. Fisher, in the course of his address, reminded the students that the College was primarily intended for the development of industrial art and design. He asked them to remember the great importance of art as applied to industry. It was as easy to make a beautiful thing as an ugly thing. That was one of the great opportunities before the students. The earlier advantages Great-Britain had in industry and commerce were passing away, and we would have to depend more and more on science to maintain our position. A great responsibility rested on the College to produce and on the captains of industry to find opportunities for the best artistic ability in the country.—*Education.*

Lord Haldane on Adult Education.

Viscount Haldane, in his presidential address to the British Institute of Adult Education at the University of London Club on Saturday, expressed astonishment at the enormous interest the public was taking in adult education. It was perfectly plain that the new democracy, which was supposed to be inert, was not inert at all, if they got at it in the right way—and that was the way of ideas. Just as the democracy responded magnificently in 1914, when it was called to deliver the country, so to-day it was awakening to a new consciousness, a consciousness that for those who were coming it was right that there should be better opportunities in the way of knowledge than existed in the past. They should go to the university as the source of their inspiration. If they could only succeed in bringing the universities outside their walls so that they might be able to furnish a sufficiency of teachers to accomplish their great mission, he, for one, would have no fear for the future.—*Education.*

India and Germany.

No feature of the Indian trade returns of the last year or two has been of greater interest than the progress made toward restoration of German commerce with this country.

The advance was slow for some time after the Armistice. In the year 1919-20 India sent goods to Germany to the value of Rs. 139 lakhs, receiving shipments therefrom of only Rs. 4 lakhs. In the following year the corresponding figures were Rs. 882 lakhs and Rs. 475 lakhs. These figures represent about one-third of those of the pre-war year 1913-14, when the exports from India were Rs. 2,642 lakhs and the imports Rs. 1,257 lakhs. The percentage share of Germany in the total trade of India was 9·05 in the pre-war year and 2·3 in the last fiscal year.

Further progress has been made in this fiscal year. In its first half both the imports and the exports were more than double the value of those of the same period of 1920. At the same rate of progress for the second half of the year Germany will have reached the position of recovering, in terms of rupee value, nearly half the pre-war trade —*The Mysore Economic Journal.*

Indian Students and Canadian Universities.

The question of admission of students from this country into the Universities of Canada was raised by authorities in India. Two letters have been received on the subject recently one from the principal of the University of McGill and the other from the President of the University of Toronto. The former letter runs as below :—

'I beg to thank you for your letter of June 21st. Let me say in reply that McGill University would be very glad to number in its student-body some students from India. In fact I have discussed with more than one Indian representative the best means of having Indian students educated here. One Indian, Rustom Rustomjee, who lectured to the students last winter, was quite sure that he could induce some Indian princes to grant a few scholarships. At the present time we have not sufficient funds to justify us offering special inducements to Indian students to take their

University courses here, but should they come we would be very glad indeed to see them and welcome them. Major Chisholm is himself a graduate of McGill. He is also an old officer of mine and I knew him very well when he served so gallantly in the 3rd Battalion. In writing to him please remember me most kindly to him and say that we would appreciate any efforts of his which would result in having the great nation of India represented at the National University of McGill.'

The second letter is as follows :—

'The Canadian Universities are not averse to receiving Indian students. In fact at a meeting of the Universities held in Winnipeg last week a committee was appointed to see what steps we should take with regard to making the way easier for the admission of Indian and Chinese students. Dean Adams of McGill is the convener of this committee. The fault does not lie at the door of the Universities at all. The Universities have for years been struggling to have the Government remove the barriers that have discriminated so seriously against Chinese students. The attitude of Indian students has, I am sure, been occasioned by what took place in British Columbia. You may be confident that the Universities will always be glad to co-operate in the way of having students from foreign parts come to us. Not only is it of value to the Universities themselves but will be a national service in regard to trade.'—*The Leader.*

Cannibalism is no unknown thing.

Extract from a letter written by a member of the "Save the Children Fund" from Saratov, dated the 11th May, 1922.

The famine is a definite, solid, concrete, horrible fact, and is beyond any description. Cannibalism also is no unknown thing here. Children are not allowed out after dusk, and no mother, with any regard for the safety of her children, allows those under twelve to go any distance from the house. The number of starving professors and really intelligent people here is frightful. But we can do very little for these. We only feed, or take on the feeding of children whom we can continue to feed while our funds last. There would be no sense in just taking a bunch of children, or giving indiscriminate feasts for a week or two, and then letting them get back into their starving condition. So we accept slowly, and maintain a regular list The Russians in authority are * * of the first water, but I hope that the Genoa Conference will result in trade being established between Russia and the Foreign Powers. This job is supposed to finish by the end of August, but I hear on very good authority that we shall continue on into the next year. For the sake of the poor people here, absolutely stupid hunger, I hope it does. The sights are awful and the objects one sees dragging themselves along the streets, are something indescribable. The food substitutes are nauseating and I don't know how any human organisation could possibly retain the filth that these starving wretches run down their throats. The weather is fine, and I sincerely trust that the harvest—the little that has been sown—will be reaped and eaten by the people and not robbed from them, as it was in the preceding years of Bolshevik rule........................

Reviews

Some Aspects of the Economic Consequences of the War for India: Thesis approved for the Degree of Doctor of Philosophy in the University of London, by S. G. Panandikar, M. A. (Bom.), Ph.D. (Econ. London). D. B. Taraporevala Sons & Co., Bombay. Pp. 451. Price Rs. 6.

The work under review is a critical study of the effects of the War on the trade, industry, public finance, currency, exchange and the banking system of India. It is for the most part based on recent official publications and in a work of this kind the modest task of the reviewer is to write an appreciation. One of the outstanding features of the book is that where possible the author institutes international comparisons. Thus the figures indicating the amount of the bank deposits in the principal countries of the world, the amount of note circulation of the world's great banks, the net imports of gold in the principal countries of the world during the War are not only interesting in themselves but in some cases are valuable as correctives of opinions hitherto held by writers on Economics. Take for instance the contention repeated *ad nauseam* that India is a sink for the precious metals of the civilised world. It is conveniently forgotten in this connection that India has 15 times the area and 7 times the population of the British Isles and that India contains 19 p.c. of the total population of the world (p. 341). The author shows that during the years 1890-1910 United Kingdom, the U.S A., Germany, France and Italy absorbed amongst them £773 millions worth of gold out of the world's production of gold amounting to £1233 millions, while India with a population of not much less than the total population of these countries took only £126 millions. Nor can it be pleaded in defence of the huge absorption of gold by the western countries that the metal was required for currency purposes, for it is pointed out that only 40 p.c. of this amount was so utilised and the balance went for "other purposes." What these other purposes were we do not know but presumably they were not very different from those in India. A second feature of the book is that an attempt has been made to look at things from the unprejudiced point of view of the scientific enquirer. The pros and cons of a question have been studied with a fairness and impartiality befitting an academician and no hasty generalisations have been indulged in.

The book is divided into eleven chapters of which four are devoted to trade and industry, four to public finance, three to banking and currency. The last chapter summarises India's gains and losses resulting from the War. The popular belief that India enjoyed a brief spell of trade prosperity during the War is refuted. It is shown that calculated at the price level of 1913-14 the value of imports into India in 1918-19 amounted to £46·9 millions as compared with £127·5 millions in 1913-14. On a similar calculation the exports in 1918-19 amounted to £113·5 millions as compared with £166·5 in 1913-14. A study of the distribution of India's import and export trade leads the author to conclude that it is not to the interest of India to adopt a policy of Imperial Preference and that "it will merely benefit some other parts of the British Empire especially the United Kingdom at the expense of India " (p. 92).

While the trade of India received a set-back during the War far different was the case with many of her industries. The War stimulated her industries by shutting out the imports from enemy countries. Even the imports from England diminished considerably as she was engaged in the task of manufacturing shot and shell and other war necessities. The activities of the Indian Munitions Board still further curtailed the imports from England. The Board refused to give certificates of priority for the importation from England of those goods which could be produced in India or imported from elsewhere. The author shows by a reference to the jute, iron and steel and leather industries how these were stimulated by the artificial restrictions resulting from the War

But the chapters most interesting to the ordinary citizen and the Indian politician are those relating to public finance. The revenues of the Government of India in 1919-20 were greater than those of 1913-14 by more than 45 p.c. Our author says they were "almost double those in 1913-14." But this is hardly accurate. While the total expenditure increased by a little more than 45 p.c., the military expenditure increased during the same period nearly 300 p.c. It is also interesting to note that during 1913-14 to 1918-19 there was an increase in the net expenditure on salaries and expenses of civil departments from £16·1 million to £21·6 millions while during the same period the expenditure on education, sanitation and medical relief increased from £4·4 millions to £5·2 millions.

The figures relating to the increase of note circulation in India during the War disclose results equally interesting from another point of view. We constantly hear it said that India is suffering from the malady of inflated currency. But very few of us realise the nature and extent of this inflation. The active note circulation of India increased from Rs. 50 crores on the 31st March, 1914 to Rs. 154 crores on the 31st March, 1920. Simultaneously with this increase in the amount of note issue, the fiduciary portion of the paper currency reserve went on increasing. By a series of amendments to the Paper Currency Act the limit of investment was raised from Rs. 14 crores to Rs. 120 crores. It was by this means of currency inflation that India Government financed a part of the War expenditure. The Home Government printed Treasury Bills, handed them over to the Secretary of State for India and against these as securities the Government here issued currency notes—a veritable case of " pig on pork."

The author rightly points out that it was this defective currency policy which was partially responsible for the rise of Indian exchange. The Government scrambled for silver at the most inopportune time when the world's production of silver fell far short of the demand " in order to give some metallic cover to the note issue." The defective gold policy pursued by the Secretary of State for India was also in some measure responsible for the phenomenal rise of exchange that took place towards the latter part of 1919. The continuance of the prohibition of the import of gold into India after the armistice and specially after the middle of 1919 when the U.S.A. became a free market for gold made it easier for the silver interests " to take full advantage of the situation." The author recommends the adoption of a gold standard and a gold currency as the solution of India's currency and exchange difficulties.

The book can be recommended to students who require within a short compass a critical, historical and comparative account of the various economic questions of India during the War.

J. P. N.

Annual Progress Report of the Archæological Survey of India: Central Circle, for 1920-21.

The report is a brief account of the activities of the central circle of the Archæological Survey of India during 1920-21. It contains 53 pages, 6 photographic plates and a drawing illustrating the excavations of the main site at Nālandā. Paṇḍit Hirānanda Śāstri is to be congratulated on the important epigraphical discovery he has made of the Nālandā copper plate of Devapāladeva, dated in the year 38. Though it has a religious character, the document is also of considerable political importance. The object of the charter is to record the grant of some villages in the Districts of Rājagṛiha and Gayā in the *Śrīnagarabhukti* for the comforts of monks and the upkeep of a monastery at Nālandā. The plate tells us that King Devapāladeva granted the villages at the request of Śrî Balaputradeva King of *Suvarṇadvīpa* made through his *Dutaka* Balavarman. The Paṇḍit is probably right in his identification of *Suvarṇadvīpa* with Sumatra. For besides the fact that the king of *Suvarṇadvīpa* is also called the ruler of *Yavabhūmī* (p. 5) which is apparently Java, we must take note also of the fact that portions of lower Burma and Malay Peninsula were known in ancient times as *Suvarṇabhūmī*, the *Suvarṇabūmī* of the Pāli Literature and the *Golden Chersonese* of the classical authors. It is quite likely that while the coastal region was known as *Suvarṇabhūmī* the large island of Sumatra which lay close by was known as the *Suvarṇadvīpa*. Another important discovery is an image of Tārā lying at Itkhori in the Hazaribagh District of Bihār with the name of Mahendrapāla incised on its pedestal. The Paṇḍit does not appear to be right, when he identifies the Mahendrapāla with 'a king of that name, who belonged to the dynasty of Pāla kings of Bengal.' It is true that a king Mahendrapāla some of whose inscriptions have been found in the Gayā district was considered by certain scholars as one of the Pālas of Bengal. But no Pāla king bearing the name Mahendrapāla has yet been discovered in any of the genealogical tables contained in the Pāla inscriptions not even in the Manahali grant of Madanapāla who is now generally accepted as the last independent Pāla king of Bengal. On the contrary we find a Gurjara Pratihāra king bearing that name and ruling over an empire stretching from the Arabian Sea to the frontiers of the Pāla kingdom. The same king is also found granting land in ancient Srāvastī in U. P. (*Ind. Ant.*, Vol. XV, pp. 306-07). Under these circumstances we think Mr. R. D. Banerjee was perfectly right in identifying the Mahendrapāla of the Gayā inscriptions with the Gurjara Pratihāra king of that name. (M. A. S. B., Vol. V, pp. 63-64) and if this is so then the Mahendrapāla of the Tārā image of Itkhori is surely the son of the Gurjara King Bhoja. The image No. 2099 contained in the 5th photographic plate is marked *unidentified.* The Paṇḍit suggests that it may represent '*Gaṅgā* standing on *Makara*.' But he adds that 'if the vehicle can stand for a conventional elephant she may represent *Indrāṇī* though that will be too bold a conjecture...' In our opinion the *Vāhana* has certainly much more similarity to an elephant than to a *Makara* though it must be admitted that its tail is not quite elephant like. But no *Makara* can have such legs. On pages 5 and 38 the Paṇḍit translates the word *Dūtaka* as 'ambassador.' In his translation of *Kauṭilyas Arthaśāstra* Mr. R. Shama Sastry renders the word as 'envoy.' But it is better to avoid these words which have now-a-days acquired more or less a technical sense in modern political parlances and retain the original Sanskrit literature. On pages 35 and 39 the Paṇḍit uses Devnāgrî script in writing Sanskrit passages while on pages 37 and 38 he has Roman characters without any diacritic marks. Again on page 39 the word *Indrāṇī* is written in Italics while the word Gaṅgā is not so rendered. We would like to urge the necessity of more precise expressions in such learned reports and the use of uniform system in writing Sanskrit words and passages. If diacritic marks are expensive why not use Devanāgarî characters only ?

HEMCHANDRA RAY

India Arisen: By Prof. T. L. Vaswani, Re. 1-8, P. 114, Ganesh & Co., Madras, 1922.

The author is an idealist, and "idealism is not statesmanship." An idealist is seldom practical, he may not be logical even Prof. Vaswani has attempted, in this little book, to explain the philosophy of non-co-operation. To those who want cogent reasoning and inexorable logic, the book under review is disappointing. But those who prefer an impassioned appeal to the heart will find it excellent and charming. The book is well printed and nicely got up.

S.

A Soul's Posy: By Zero (Panini Office, Allahabad) Price 8 Annas.

The Panini Press have issued a very attractive little booklet of a soul's meditations upon the things that really matter—things pertaining to the Higher Life. It is the eternal cry of the soul crying out for the Beloved. The theme is ever new and as ancient as "the Creator's first plan of the Universe." The Upanishad Seers have sung of It in Indian and in Persia the Sufis have sung of the Beloved. This Posy reminds us of both and has occasionally very quaint imaginary drawn from 20th century science. One little bit where the ten layers of the retina are spoken of will, we hope, delight an oculist of sufistic bent. There are a lot of apt illustrations from physics, zoology and physiology. The mixing up of Science and Sufism is quaint but strikes out a new and bolder line. The message is the same as of old, only clothed in modern language as in the sentence "The inner 'Wireless' depends on the inner æther tuning." The book is worth reading slowly and being meditated upon.

BOOKWORM

A Short History of the Order of Saint John of Jerusalem—by E. M. Tennyson (The Society of S. S. Peter and Paul, London).

A very interesting and readable account of a great humanitarian movement which shed a beam of light across the otherwise lurid clouds that envelop the history of mediæval Europe. We are carried in succession from Jerusalem to Cyprus and Rhodes and then to Malta. The author has strong likes and dislikes and makes no disguise of his feelings against the Moslem, the Hun (both ancient and modern) and against anything connected with the Revolution. This rather mars an otherwise exceedingly readable history. He is unusually severe upon Baron von Hompesch th last Grand Master of Malta. There are other opinions about him and even if he sinned in handing over Malta to Napoleon he atoned for it by hi death as a pauper. But the one thing the author cannot forgive i Hompesch is his German birth. Boys scouts should find this book of adde interest when preparing for their ambulance badge. Cœur de Lion La Valette and host of other true knights pass before us one after the other—a series of inspiring figures, true Scouts all.

BOOKWORM

The Drink and Drug Evil in India.—By Badrul Hassan (Ganes & Co., Madras), pp. 161. Price Rs. 2.

A formidable champion of what may be called the Pussyfoot-Gandl campaign in India has taken the field with this little contribution to th vexed problem of "dry" reform. Mr. Hassan here presents himself t the reader as at once a historian, though in miniature, of the drink ev and an enthusiastic advocate of temperance. The historical sketch whic passes in review the entire period from the age of the Vedas to the ag of the Moguls forms, however, only a quarter of a work, the bulk of whic is a vigorous and sustained denunciation of the successive excise system of the Indian Government from the advent of the East India Compan to the present day. If, now, statements like "Muslim influence helpe rather than retarded the habit of drinking" and others in the chapte headed "Under Muslim Rule" be taken as the measure of the writer' candour, open-mindedness and impartiality, the subsequent criticism of th Government's excise policy should obtain a patient hearing and provi much food for serious thought and unbiassed reflection. Apparently i futable blue-book statistics and statements are much in evidence in author's dialectics, and the whole work impresses one as an honest a independent endeavour to look facts boldly in the face.

The opium problem has its due share of the writer's enthusiasm, a the deprecation of the traffic with China and the ever-increasing consum tion in India places Mr. Hassan in the company of no less a person tha Sir John N. Jordon, who, in a recent article in the "Daily Mail," h expressed his belief that it is incumbent on the League of Nations terminate the world-wide evil of the opium traffic.

Neatly bound, adequately indexed, clearly, forcibly written and, on t whole, carefully printed as it is, this volume should recommend itself all interested in the drink and drug problem.

P. D.